

### Polytechnic course fees should be for 'duration'

by Ian Coxon

Tuition fees should be fixed for an entire course and not reassessed annually. Staff and students from 27 polytechnics reached this view at a recent one-day conference at Leeds Polytechnic on the problems posed by the latest tuition fee increases.

Many delegates cited cases of self-financed students whose studies had been curtailed because of large fee increases for which they had not budgeted. There was also a consensus that the "inflated and widely varying systems" adopted by local authorities for considering cases of hardship led to unnecessary worry and confusion.

"The major conclusion to have come from the conference is our recognition of the general state of chaos which exists throughout the country with regard to the raising of fees and their remission," said Dr Patrick Nutgens, the director of Leeds Polytechnic, who chaired the meeting.

It was held after the academic board of Leeds Polytechnic decided last May that there was need for a forum to discuss polytechnic tuition fee increases. Mr Trevor Phillips, the general secretary of the National Union of Students, said that the Government was spending large sums of money creating job opportunities for young people. "But it is denying them the right to many of these jobs by severely restricting

access to higher and further education with astronomical increases in tuition fees.

An overwhelming number of the 80 delegates, including many polytechnic administrators, felt that in the long run tuition fees should be abolished altogether.

Many expressed fears about the future of non-designated courses which do not carry mandatory grants. "The character of the polytechnics may be seriously affected because of the distinction between designated courses which attract mandatory awards and the non-designated which attract discretionary awards," Dr Nutgens said.

"A large variety of courses, both undergraduate and postgraduate, frequently of a vocational nature for which there is current demand, may suffer from the raising of fees and from the decision of many local authorities to limit discretionary awards."

Speaking about the number of students who are being seriously affected by the fees increase Dr Nutgens said: "My impression is that about 10,000 students are affected, of whom about 3,000 might have to give up their courses because of hardship."

A detailed report of the conference is being prepared and will be circulated widely to politicians, Government departments, local authorities and all other interested bodies. The organizers hope to hold a second conference in the autumn.

### Medical teachers and research workers set up new union

by Clive Cookson  
science correspondent

A new union for medical teachers and research workers is being set up under the auspices of the British Medical Association. The Medical Academic Staff Conference (MASC), as it will be known, will replace the BMA's Full-Time Teachers and Research Workers Committee and the smaller Association of University Clinical Academic Staff (AUCAS) and will represent about 3,000 medically qualified teachers and research workers.

The establishment of MASC was approved by the BMA annual meeting in Glasgow last week, after AUCAS (not a BMA body) had urged to dissolve itself and pass its interests and assets on to the proposed new group.

MASC will meet for the first time at the end of September in Oxford, with one clinical and one preclinical teacher representing each medical school, and research worker representatives. A 16-member medical academic staff committee will be elected to act between conferences, which will be held at least once a year.

Preclinical and clinical subcommittees will look after the interests of the two classes of member. The clinical subcommittee will provide negotiators to meet employers' representatives at the Clinical Academic Staff Salaries Consultative Group, where their pay and conditions are discussed.

The conference will meet separately in clinical and preclinical sections (depending whether the

medically qualified teacher is paid according to NHS scales or non-clinical university scales) before coming together in a plenary session.

Professor Peter Quilliam, of St Bartholomew's Hospital Medical College, chairman of the BMA teachers' committee and a leading spirit behind MASC, said a major subject of interest for the clinicians would be possible changes in the negotiating machinery for clinical academic pay and conditions.

The preclinical side is likely to be preoccupied with the continued existence of medically qualified teachers in preclinical departments, in the face of the rapid decline in their numbers over recent years (caused principally by low salaries in relation to clinical teaching and health service practice).

The whole conference will be concerned about the way the medical profession has set itself against any further expansion of medical schools, as a result of an increasing flow of predictions that Britain is on the point of producing too many doctors. This was shown by last week's BMA meeting, which called for a freeze on medical school intake after this year.

Speaker after speaker conjured up the spectre of doctors on the dole, and there were demands that medical student numbers should not just be frozen but cut by 25 per cent or more. Medical academics at the meeting decided it would be inappropriate for them to comment as a group on student numbers, but they will have to face the issue when MASC convenes in September.

### UGC gives Cardiff ultimatum

by Frances Gibb

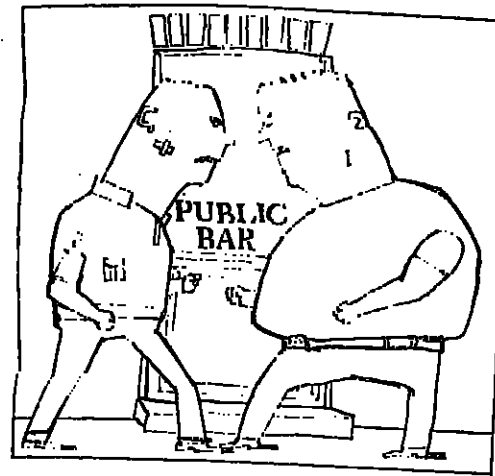
The University Grants Committee has rejected a plea from Cardiff University, Cardiff, for the time to draw up proposals for joint development with other university institutions in the south of Wales.

At a recent senate meeting, C. W. Bevan, the college principal, said Sir Frederick Denton, chairman of the UGC, had made it doubly clear that unless the college was prepared to join the League of Wales Institute of Science and Technology immediately, it would have to face a serious view of cooperation in a view of the special provision for the college.

The ultimatum was given in the "pressing problems" section of the UGC report on the University of Wales.

In March, the UGC requested the three university institutions in Cardiff (University College, Cardiff and the Welsh National School of Medicine) draw up plans for a special development. On this basis, it said, could the committee of extra capital resources be justified.

University College and the other two institutions have now submitted to the UGC an outline growth plan which includes the purchase of land at Cardiff for engineering and health science buildings to be allocated to the college for arts and social science.



"If you want a fight, mate, step inside."

### Cardiff accused of disregard for democracy

by Frances Gibb

A storm of protest has been provoked by the verdict of the independent inquiry into recent appointments at University College, Cardiff, announced in July.

Academics from several universities have expressed concern that the verdict, which was accepted by the college council as a "complete vindication" of the principal, Dr C. W. L. Bevan, and administration, would shake public confidence in the university system.

It would also deter lecturers from applying for jobs. Dr Bevan, including two professors, have written to the Western Mail, calling on the college to reform its system and style of government so that "the widest possible range of views is heard".

The inquiry was set up under the leadership of Dr H. E. Francis, QC, following the discovery by students of a document of letters concerning recent appointments at the college. These letters had been advertised by Bevan before advertising for lecturers for the posts. It was also revealed during the inquiry that the external assessors on the selection committee, Dr H. E. Francis, concluded that both Bevan and the external assessors were selected after proper procedures, and dismissed the suggestion that several members of the college staff had been appointed not on their merits but because of links with universities in Nigeria where Dr Bevan had lectured.

Letters are arguing, however, that while they agreed with the facts as presented in the report, they strongly dispute its conclusion, and that it vindicated the principal. In the letter to the Western Mail, the principal invited an applicant to nominate two external assessors, which, they say, is "clearly contrary to natural justice". Dr Bevan was also found to have declared in a letter that a particular post had been created several weeks ahead of the decision of the college council to create it; "behaviour which the report finds to be above reproach."

"The college council," the letter adds, "having sanctioned this infringement of its right satisfactorily, has effectively authorized the principal to ignore the college charter whenever it is convenient for him to do so."

### The pint that thinks it's a tort

by Stephen File

The next time you are cruising in a Whitbread public house, take care not to become an Oxford research statistic. For the brewery is academics will examine "violent encounters in relation to alcohol."

To herald the event, The Times and other national newspapers have carried full-page advertisements which feature a merry "bottoms-up" photograph depicting Arthur and Rita, a mismatched landlord and his dulleh-bedded wife, amidst the sort of customers who know when they have had enough.

However, its frame is shattered and its glass does not know when he has had enough, and next two years, the Oxford researchers will study for the From the autumn all Whitbread landlords will send them full details of any incident involving

this sort of headish taper. The researchers will then report periodically to a specially formed committee of academics, public figures and members of a report, suggesting ways in which pub violence can be curtailed.

Mr Michael Argyle, reader in psychology who will oversee the work, said: "The project is an interpretation of the violent encounters and to publishing the results of the project. Four salient members of the department will oversee it."

But what if, as seems inevitable, drinking is found to be among the root causes of trouble? "Most people do not go into a pub to get legal penalties for those who do. We shall have to wait and see what happens."

"This in itself may require new advertising: 'Trophy, the pint that thinks it's a tort.'"

### ILEA adopts overseas student quota

by Sue Reid

The Inner London Education Authority has agreed a formula with the Department of Education and Science which will allow it to introduce an overseas students quota system in the colleges and polytechnics it funds, without contravening the Race Relations Act.

A confidential letter from the authority outlining the plan is now in the hands of the principals of all inner London's colleges and directors of the five polytechnics. An accompanying document from the DES giving full details of the new "quota" arrangements is expected to follow on the basis of a nationwide circular on the Race Relations Act and its impact on overseas students which is to be issued next week.

The ILEA letter states: "The secretary of state has now approved arrangements which provide for the restriction of the numbers of overseas students admitted to colleges and polytechnics aided or maintained by the authority."

The DES document maintains the restriction of overseas students on full time or sandwich courses on this September. Colleges where the percentage of overseas students did not exceed 10 per cent of the total in 1975-76 have been told to freeze their foreign numbers at this level in the coming academic year.

In the case of other colleges where in 1975-76 the overseas numbers exceeded 10 per cent, a different quota formula has been laid down. The DES has also revised the definition of an overseas student. The date for the completion of the three-year qualifying period of residence after which foreign students can be regarded as home students has been altered.

While this aspect of the arrangements may yet be revoked, the DES document in the hands of the colleges states: "The qualifying period must now be completed before the date of the student's application for admission to the course, instead of the date of commencement of the course." This effectively adds several months to the period of residence required, but does not contravene the Race Relations Act if it takes place in line with the approval of a Minister of the Crown. The Williams arrangements were drawn from the various main interests in adult education including the local education authorities, the voluntary bodies, professional associations and "consumers".

### Sussex unit to examine cash allocations for big science

The way British Governments have allocated hundreds of millions of pounds to prestigious big science projects since the last war is to be examined by Sussex University's Science Policy Research Unit.

A Social Science Research Council grant of £26,000 has just been for the study which it is thought, will be the first critical analysis of the benefits and costs of big science. The need for it has been pointed out several times recently (amongst others by Sir Frederick Denton, chairman of the University Grants Committee and evidence to the Commons Select Committee on Science and Technology).

The investigation will be supervised by Dr Ian Turner and Mr Keith Pavitt, of SRRU, and Dr Norman Dombay, reader in theoretical physics at Sussex. They are looking for another physicist and a social scientist to carry out the work.

Research at three high energy physics laboratories (Daresbury, Rutherford and CERN) and astronomy centres (Jodrell Bank, the Mullard Laboratory and the Royal Greenwich Observatory) will be assessed according to three basic criteria: the intrinsic merit of the science as a contribution to human knowledge, educational benefits for those who teach in higher education

tion or go on to work in other scientific fields, and technological benefits for industry.

As well as looking at these established centres, the team will examine two or three recent proposals for research projects involving large capital spending and high operating costs—perhaps the new laser and neutron beam facilities at the Rutherford Laboratory, and the JET European fusion project.

The difficult task of assessing scientific merit will be tackled with the help of physicists at Sussex and other universities. In addition, industrialists will be asked whether they feel big science produces more or less technological spin-off than other basic research.

The investigators may not be able to get at all the relevant documents, Mr Pavitt pointed out, because of the British secrecy laws. "But even if we cannot get access to the documents, we do have access to the people."

The findings will add fuel to the argument over the proportion of Science Research Council funds that should be devoted to a small number of multi-million pound projects rather than to the thousands of research applications from individuals or small groups in universities and polytechnic departments.

### December start for Radcliffe



Model of proposed Radcliffe College

December has been set as the deadline for work to begin on Radcliffe College, Oxford's £1m project to cater for postgraduate clinical students. City planning authorities have given approval for the first stages.

The university surveyor, Mr Jack Lankaster, is to design a set of buildings that will merge unobtrusively with the eighteenth-century architecture of the Radcliffe Observatory and its ancillary buildings which will form the heart of the new college.

Other House and the Tower of the Winds, built in 1794 and described by Pevsner as "the architecturally finest observatory of Europe", will both be part of the college.

The design consists of a new L-shaped block behind the Woodstock Road frontage, so placed as to form a courtyard with the existing buildings in front of the Observatory and its garden. The block will be two storeys high, with double-hung sash windows and pitched tile roofs. It will be faced with natural stone.

The block will comprise eight rooms, a seminar room, two flats for married students, changing rooms, offices and a porter's lodge. The courtyard itself, now cordoned, will be paved over. The second stage of the development will involve renovating the inside of the Tower of the Winds and the Observatory to make it the social centre with, among other things, a library and common rooms. Stages one and two have been approved by the planning authorities. The third stage will involve a block of about 40 study bedrooms still to be designed and approved.

### London Bill goes on

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The four points of concern put to Dr Hargrave and which were discussed in the House of Commons on 12th July were that non-teaching staff were not represented on the committee comprising union and non-union representatives; and that the Bill would be a committee of the House of Commons.

It also wanted representation of the body making the decisions which will be implemented and after a sensitive consultation, if the Bill is passed.

### TEC to supervise art courses

The Technician Education Council is to supervise examinations and courses in art and design. About 15,000 students in more than 100 art and further education colleges will be affected. Over the next few years TEC qualifications will replace those organized by the City and Guilds of London Institute, the Royal Society of Arts and other examining bodies.

A TEC official added: "It will design and create within the TEC which will create representatives of both the colleges and employers and will liaise with the Business Education Council. The TEC's move is part of Department of Education and Science policy and will eventually help co-ordinate training and examining in the field. It will also help to integrate the design factor into British productive industry and improve its design."

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### Publication of the THES

Dr Richard Hoggart, warden of Goldsmiths' College, London, has been appointed first chairman of the new Advisory Council for Adult and Continuing Education, the Department of Education and Science announced this week.

Dr Hoggart, aged 53, is a former full time tutor in adult education. He became director of the Centre for Contemporary Cultural Studies in 1963 and in 1970 was appointed assistant director, general, of UNESCO, a post he held for five years prior to joining Goldsmiths' in 1976.

Other members of the new council, which will advise generally on adult education in England and Wales and which has a brief to promote cooperation between the plethora of bodies in the field, have yet to be appointed, the DES said. It is expected that the full council will meet for the first time early in October.

### Adult council head named

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### Next week

Don Cupitt: conservative Christianity  
Richard Hoggart on higher education and the arts  
University holidays  
Frances Gibb on arts courses

### Policy studies finance doubts

continued from page 1. most of the major policy bodies when he said their financial position was "in a Mahatman—a danger the SSRC would compete with them for a limited amount of policy studies money."

The same point was made at the meeting of the SSRC a fortnight ago which decided to invest £2m of the council's money in policy studies. Some members also thought the council was rushing into the new area simply to stake a claim without adequate regard for the administrative and academic consequences.

Policy studies specialists, such as Professor L. A. Gunn, of Strathclyde University, were this week a little puzzled about how the proposed Institute would relate to recent

SSRC initiatives in the fields of health policy studies and the study of central and local government, on decided to spend up to £5m.

On behalf of the council, Professor Peter Hall of Reading University, who has played a leading part in promoting policy studies, denied the SSRC would have difficulty selling policy studies to the foundations and private companies.

He said: "Policy studies is fairly well understood among them and the detail in our proposal will emerge only in negotiations. We don't regard the proposals as a fire; it is a sort of pre-arranged discussion is now going to take place." Chatham House reaction.

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### Better protection for short-contract staff

by Mike Duckenfield

An important legal ruling affecting thousands of lecturers and research workers on short-term contracts at about 1,000 universities alone has been made by the Employment Appeal Tribunal.

The ruling closes the loophole allowing employers to argue that there could be no appeal against unfair dismissal where a contract provided for either side to give notice ending it before the normal expiry date.

In one case, supported by the Association of University Teachers, the tribunal ruled that Mr Peter Throsby, a lecturer at Imperial College, will have been "dismissed" if he had been given a notice to end his term as warden of a hall of residence from next month.

However, his appeal was not allowed on the technical ground that a person cannot seek compensation for a prospective termination of employment. Nevertheless, the tribunal's main ruling regarding dismissal means that Mr Throsby's case can be considered on its merits at a future date.

In the other cases, the tribunal allowed appeals by two former BBC porters and dismissed an appeal by Gwent County Council against a Cardiff industrial tribunal ruling that a college of further education lecturer, Mr Lyndon Lane, had been unfairly dismissed. Mr Lane was awarded £225 compensation.

The general secretary of the Association of University Teachers, Mr Laurie Sapper, clarified the position of staff on short-term contracts: "Staff on contracts of under two years, when their terminal date comes up, can claim unfair dismissal compensation provided that the person concerned has served at least six months with the college or university."

Whether the claim will succeed or not depends on whether the contract was a genuine term contract—that is, that both employer and employee intended quite clearly that the contract was for the limited period and not a cover for the beginning of longer-term employment.

For contracts of two years or more without any provision for notice before the terminal date, the same considerations apply except that both employer and employee intend that the contract should be renewed.

For contracts of two or more years with provision for notice in the contract prior to its terminating, the same considerations apply again. But here staff cannot agree to contract out of their rights to claim unfair dismissal compensation or redundancy payments.

Some have drafted their contracts of employment specifically for that purpose; others have taken

advantage of the fact that the contract of employment happened to be in that form. The judges felt that to sustain the employers' arguments would lead to "disastrous consequences".

"It would lead to the result that the provisions relating to unfair dismissal could be evaded in any case where an employer could persuade an employee to sign a contract of employment for an 'apparent fixed term'."

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### Compensation ruling 'will hit lecturers'

Redundant college lecturers obtaining senior posts in schools will not generally be entitled to compensation for inconvenience or loss of status.

This is the view expressed by Mr Len Sheen, principal administrative officer of the Burnham further education secretariat, in an article published in the *Journal of Education*.

Mr Sheen's arguments are based on the results of the first industrial tribunals to rule on disputes between lecturers and the compensating authority, the Department of Education and Science, in the case of voluntary colleges and the employing authority in other cases.

He said this week that a general picture was emerging from the cases heard so far, though the decision of one tribunal was not binding on another. "One can say that a scale one or scale two post in a school would probably be considered comparable to a senior lecturer's job, with an element of doubt about scale two. Scale three and four posts probably would."

In his article he says that the main body of cases so far have turned on the definition of "reasonably comparable" employment. An applicant is not entitled to redundancy or long-term compensation if he has been offered "reasonably comparable" employment with the job he has lost.

"Resettlement compensation" is an enhanced redundancy payment subject to a qualifying period of two years in "relevant" employment. Long-term compensation, according to Mr Sheen is a regular payment of up to two-thirds of annual emoluments lost and is subject to a five-year qualifying period.

Mr Sheen says that a crucial case is that of C. J. Bull v the Secretary of State. Mr Bull, a former senior lecturer at Colyton College, West Devon, was offered a post in a secondary school. His application for compensation refused on the grounds that a scale three head of mathematics was reasonably comparable even though he had 19 years previous teaching experience in schools. He is to appeal.

The tribunal found that the nature of his work was comparable to the one that he was teaching. It also ruled that the salaries, responsibilities and status of both were reasonably comparable.

Mr Sheen says the tribunal accepted there were differences in social regard but did not accept that these rendered the two jobs incomparable. Mr Bull's appeal to the High Court will have to be on a point of law.

Mr Sheen says that so far there have been two disputed cases where the applicant has been successful in his claim for compensation.

In the first the tribunal ruled that the post of senior lecturer in music at a voluntary college was not reasonably comparable with a scale two peripatetic music teaching job.

In the second it was decided that a scale one post in a school was not comparable with the post of senior lecturer. The tribunal felt that the teacher's responsibilities had been much reduced and that the standing of the two jobs was very different.

Mr Keith Scribbins, assistant secretary (salaries) at the National Association of Teachers in Further and Higher Education, agreed that the tribunals have been sensible. "They have rejected the DES idea that any post with a safeguarded salary is reasonably comparable. Apart from the Bull case we are happy."

He said that most cases for compensation have been accepted and that it is unlikely that there will be many teaching places in schools reckoned to be reasonably comparable.

Leader page 16

### Stockwell decision halts merger at eleventh hour

by Judith Judd

A merger which would have formed the Bromley Institute of Higher Education has been halted at the eleventh hour after the Government decision to end teacher training at Stockwell College of Education.

Bromley Education Committee has recommended to Bromley Council that arrangements for the merger, due to take place in September, should be cancelled. The committee has also recommended that steps should be taken to declare redundant the new college's director, Mr John Talbot.

Mr Talbot was appointed to the directorship after he was made redundant from his £10,000-a-year job as assistant director of resources at Newcastle Polytechnic in October. The redundancy followed a controversial survey on costs and staffing levels.

A spokesman for Bromley Council said it was felt that the merger was pointless now that one of its main components, teacher training, had been removed. "It is like taking away one leg of a three-legged stool."

The two other institutions involved, Ravensbourne College of Art and Design and Bromley College of Technology will remain independent and freestanding institutions.

The fate of the Bromley College will be of interest to the other institutes of higher education which are being their teacher training. Eding Council is to review the position.

### SRC make the most popular fellows

by Clive Cookson, science correspondent

The Science Research Council received so many applications for its new five-year advanced fellowships, designed for outstanding young scientists who have not yet obtained tenure posts, that it has offered twice as many as it had intended.

The 251 applicants included many excellent candidates and the SRC found funds to offer awards to 43 of them, rather than the 15 originally envisaged. "Ten so many good candidates had to be rejected," the council said.

Thirteen fellowships will be held at Cambridge, seven at Oxford and four at Imperial College, London. Birmingham University gets two and Bristol, Leeds, Nottingham, Newcastle, Southampton and Sussex universities and the Zoological Society of London one each.

The SRC is most unlikely to continue offering advanced fellowships at the rate of 33 a year, because at about £6,000 per person, the expense would mount up too rapidly.

In addition, the council expects a less overwhelming response in future years. Last year, when the SRC launched its five-year senior fellowships, there was similarly a very heavy initial response, but this year there has been much less interest. In fact only two senior fellowships have been appointed, compared with six last year.

Applications for two-year postdoctoral fellowships rose slightly to 221 from 201 last year. The number awarded fell from 75 to 69, of which 16 are renewable overseas. The total cost of the two senior fellowships will be around £24,000 per annum (£24,000 for the two senior fellows, £20,000 for the postdoctoral fellows).

Closing date for applications for next year's advanced fellowships will be October 31, 1977. For senior fellowships it is November 30.

### More school leavers go for degree

The number of school leavers directly entering degree courses increased by 11 per cent in 1976, while only 9,000 entered training courses—down from 10,000 in 1975.

Provisional figures released by the Department of Education and Science show that 70,700 left school last year; 22 per cent more than in 1975.

Of all leavers, 84 per cent attempted CSE or OCE examinations, with some success. However, 16 per cent—11,200—gained one or more A-level passes. This was 27,000 more than a decade ago, and the percentage of one or more passes increased in the period.

A strong trend in the last five years has been the increasing number of mixed science and social science A-levels. In 1976, just over one half of those who took A-level passes had one or more A-level passes in science or social science subjects, just over one half in other subjects.

The department expects a further increase in the number of school leavers taking A-levels in science and social science subjects. Only 14 per cent of those taking A-levels in other subjects were from mixed science and social science subjects.

By last year, however, the proportion of school leavers taking A-levels in science and social science subjects had declined 4 per cent and those taking A-levels in other subjects had increased to 21 per cent.

The department also expects a further increase in the number of school leavers taking A-levels in science and social science subjects. Only 14 per cent of those taking A-levels in other subjects were from mixed science and social science subjects.

### OU student costs are 'unlikely to fall'

by Sue Reid

The average costs per student at the Open University are unlikely to fall between now and the end of the decade. Even this predicted levelling out will only be achieved if there is a slowing down in the expansion of the range of courses offered, it was claimed this week.

But the average costs will still be only a quarter of those at conventional universities, according to a new paper by Mr Leslie Wagner, head of social sciences at the Central London Polytechnic and former research consultant at the Open University.

He points out that a change of policy within the Open University could bring about a reduction in average costs. The paper suggests that a shift of emphasis from science and technology to arts and social science courses would have a favourable impact on costs but rejects more radical cost-saving

measures such as the withdrawal of broadcasting. Most of the economies of scale reaped within the first few years of its operation. Since then it had followed the more conventional pattern with little increase in productivity.

The paper, published in this month's edition of *Higher Education*, adds: "The major reason for the small fall in the average cost since 1973 is that the university has been using the economies from rising student numbers to increase the number of courses offered to students."

The university has proposed a final target of 87 full-credit equivalent courses by 1982 and it was predicted that this target was being reached with which the target behaviour of average cost. The university increased its production capacity to reach the target earlier than presently planned, costs would be reduced.

It might be possible to reduce the average costs per student at the Open University by changing the mix of courses. Calculations showed that while the average cost of producing a new course in the university is a whole lot higher, the cost in different faculties varied between £140,000 in arts and £260,000 in science.

Using revised cost calculations for the Open University and conventional universities for 1973, the paper shows that there is a significant cost advantage to the Open University. It says: "Total recurrent expenditure at the Open University in 1973 amounted to £9.9m at 1971 prices. With 38,124 students finally enrolled this gives an average cost per equivalent undergraduate figure of £260."

In comparison the conventional universities' recurrent expenditure in 1973 was £32.2m at 1971 prices. Using new weightings indicated by this gave an undergraduate equivalent total of £292.10 and an average recurrent cost of £113.

The Committee of Vice Chancellors and Principals and the Association of University Teachers are both strongly opposed to Labour Party proposals that universities should come under local authority control.

The proposals are contained in amendments to the Labour Party's final consultative document for local government reform. Party officials confirmed this week that they have been approved by Labour's national executive committee (NEC) for incorporation in the final draft.

Lord Boyle of Handsworth, chairman of the CVCP, has recently expressed his belief in universities as national institutions, and his views are strongly endorsed by the rest of the committee.

Professor Stanley Donnison deputy chairman of the CVCP and vice-chancellor of Hull, said universities had always opposed such proposals, including the devolution of the Scottish universities.

Mr Laurie Sapper, general secretary of the AUP, said that the advocacy of the proposals had no approval, nor any role or function, in the development of the country. It was understandable that schools should be accountable to local authorities since school populations were drawn from the area, and it was right that they should have some say in the resources available.

Universities, however, were drawn from all over Britain and should be to the country as a whole through the University Grants Committee.

It added that unlike schools, technical colleges and polytechnics, universities were major research centres, contributing to the advancement of knowledge on a national and international scale.

The consultative document, expected to be released next week, will be discussed at a Labour Party conference. An executive statement will then be prepared for the conference the year after.

### Local control opposed by universities

The Committee of Vice Chancellors and Principals and the Association of University Teachers are both strongly opposed to Labour Party proposals that universities should come under local authority control.

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The committee also agreed that the decision to retain the teacher training at Bradford College, earlier this year, was a mistake. It was a mistake to try to defy the Government and to try to keep teacher training at Bradford while continuing it at other colleges.

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### Universities join housing for the young schemes

by Judith Judd

At least six universities are negotiating with housing associations to provide accommodation for students and single young people on university land. The negotiations follow a Government statement last March suggesting that university housing associations to help solve the housing problem among young people.

The universities which have already decided to join housing associations include Brunel, Loughborough, Manchester, Newcastle, Northumbria and the University of East Anglia and Edinburgh.

The plans vary considerably. At Brighton the university has been working with the local authority as well as the housing association. Through there are some legal difficulties to be sorted out, the university hopes to be able to go ahead shortly with 300 units for single people, many of which will be for Brighton residents, probably single young people.

The local authority, which has a common interest in solving the housing problem in the town, will also come through the housing association. The university will manage the units on behalf of the housing association and will collect the rents.

At Manchester, the plans are different. The accommodation will be built on university land but the university has negotiated directly with the housing associations.

There are two schemes, one for married overseas students in a complex which is planned to have at least 50 per cent students, and another for a total of 373 people, 50 per cent of whom should be students. Work on the first will start before the end of the year and the first stage of the second next year.

A spokesman said the university had acted in response to ministerial wishes. "In addition, it does give some residences for students at a time when there is no University Grants Committee money for them." He said the university welcomed the idea of a mixed community of students and other young people.

Mr Peter Ashby, deputy president of the National Union of Students, said the encouragement of such schemes was one of the priorities of union policy. "We think that well as the decline in private rented accommodation students should be treated as part of the general problem of young homeless people."

Mr Ashby also said that the idea of more home-based students had been fully killed. The statement followed a meeting to discuss a study of student housing commissioned by the Department of Education and Science and carried out by lecturers at the University of Keele.

The meeting of DES representatives, local authority, university and polytechnic members considered the report, which reflects suggestions for more home-based students.

Mr Ashby said: "We are very pleased with the report and with the proposals for more home-based students. It has not yet decided whether to publish the report but it is expected that it will now be sent to interested bodies."

Competition for awards from the Natural Environment Research Council is likely to be considerably stiffer this year than last, the council warns in a report on postgraduate training published this week.

Demand from universities, polytechnics and research institutes has increased in recent years, it says. In 1976 there were 148 applications for 288 research studentships compared with 142 in 1975. Applications for 42 applications for 15 institute studentships and 319 applications for 187 advanced course studentships.

Demand was expected to increase this year because of the increase in postgraduate tuition fees. The NERC was unable, however, to find extra funds to meet the expected extra demand. The most that could be expected was to offer the same number of new studentships as last year.

An applicant with a first degree below an upper second-class could not be accepted for a research studentship, nor would less than a lower second be accepted for an advanced course studentship unless there was clear evidence that the first degree result was unrepresentative of his ability.

Last year, 60 per cent of advanced course studentships went to students with upper second-class honours, 20 per cent to those with lower second-class honours and 20 per cent had first and only 1 per cent with a third class.

Postgraduate Training in the Sciences of the Natural Environment Research Council, Alhambra House, Clarendon Cross Road, London WC2.

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### Libraries given adult guideline

Libraries and adult education bodies should share a common interest in helping students and other readers to develop their potential, according to a new set of guidelines on adult education published this week by the Public Libraries and Adult Education Committee for the north-west.

The guidelines maintain that public libraries are eminently suitable for adult education. They are also admirably fitted not only to encourage inquiring adults but to serve their classes.

The committee says: "Adult education bodies should provide libraries with information about their needs and should offer a comprehensive service to the public. Subjects, meetings, places and enrolment should be encouraged."

The guidelines also encourage libraries to provide a wide range of services, including: "Guidelines for Cooperation, prepared by the North West Public Libraries and Adult Education Committee, is available from the honorary secretary, P.L.A.E.C., care of the WEA, School Lane, Liverpool, price 40p (including postage)."

### New cash allowances urged for 16 to 18 year olds

by Sue Reid

The Government is being urged to introduce a new wide-ranging system of financial allowances for all young people aged between 16 and 18 outside permanent employment.

The call has come from the National Association of Teachers in Further and Higher Education which is pressing for "student wages" on the lines of the £18-a-week training allowance for 16-18 year olds, unemployed since 1973, proposed earlier this year in the Holland report.

A strongly-worded policy statement issued last week by the 70,000 member union on the education, training and employment of the 16 to 18 age group says: "We urge the Government to establish common guidelines for the mandatory assistance from public funds of all young people under 18 and not in employment in order to eliminate the anomalies of the differential incentives."

The NATFHE has expressed fears that the generous training allowances recently given Government approval will attract potential students from further education courses and encourage school leavers to become unemployed and gain the allowances through "playing the system".

Mr Bryan Davies, NATFHE member and MP for Telford North,

supporting the union's statement, said: "We have seen clearly over the last two years the Department of Education and Science's failure to match the power of the Department of Employment and set resources into this field."

He added: "We are in a situation where the Government is ploughing resources through the DoE and the Manpower Services Commission into the crucial problem area of the 16 to 18 age group while at the same time money coming into the traditional education sector is being frozen or reduced."

Commenting on the inconsistencies likely to be caused by training allowances if they were not matched by student wages, Mr Davies criticized as absurd a system where young people could receive £18 a week from the Department of Employment while public funds of £18 a week were being denied funds by local education authorities.

The union statement also urged closer cooperation between education and training agencies and to overcome the division between education and training.

The Education, Training and Employment of the 16 to 18 Age Group, a policy statement is available from the NATFHE, Hamilton House, Mulbarton Place, London WC1. Price 35p.

10/11/77



# 1978 training target 'should be 9,450'

The 1978 intake to three and four-year, teacher education courses should be 9,450, the Government said recently. The figure, first given in *THE TIMES* last month, includes any January, 1979, intake but not part-time students on initial training courses.

Within the 1981 total the Department of Education and Science has assumed that about 22 per cent of the places will be devoted to induction and in-service training. The total number of training places in 1981 will be 46,670.

Admission targets for 1978 for all institutions have been sent to local authorities and governing bodies of voluntary colleges.

A memorandum sent out with these letters shows that the most recent evidence of national average rates of wastage indicates a total figure of 10.5 per cent of the total intake in the first year of original intake, in the second 4.5 per cent and in the third and fourth 4.5 per cent.

This means that output targets have been suggested which are 20 per cent lower than the corresponding intake targets.

Colleges which admit students to courses that may not lead to a teaching qualification have been advised to regulate options available to students so that they can keep as close as possible to target.

The Government has also made its long-awaited announcement that the certificate of education should be phased out. Mr. Oakes, the Minister of State for Higher Education, said the last entry for the certificate should be in 1979-80.

Mr. Oakes said that an entry to one-year shortened certificate courses for those with specialist qualifications in craft, design, technology, music and business studies should continue up to and including 1983-84.

The DES will consult local authorities, colleges, universities and teachers about the details of implementing the decision.

# Anti-cuts week planned by CEA

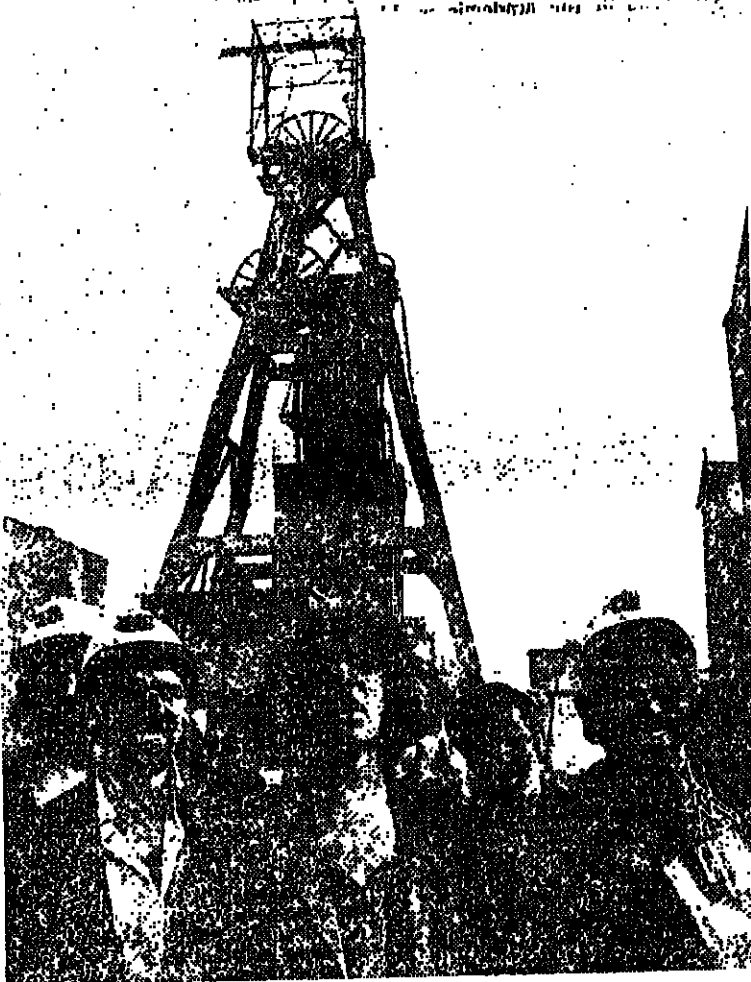
The Council for Educational Advance, the broadly based pressure group opposed to cuts in education spending, is to hold its second National Education Week (NEW) between October 17 and 23.

Guidelines have been sent out to the council's 45 affiliated organizations and local groups suggesting activities for the week. These include school and college open days, petitions, teach-ins, public meetings and lobbying local councillors. Nationally, the council is to set up a panel of education personalities to take part in local brain trust.

The week will culminate with an "education Sunday" when the theme of the week, it is hoped, will be taken up in sermons, prayers and Sunday school lessons.

The council currently has local centres in Haringey, Manchester, Brent, Grivensham, Coventry, Leicester, North Warwickshire, Rugby, North Hertfordshire, Nottinghamshire, Derbyshire, Corby, Hackney and Hallow.

The council's secretary, Mr. Henry Clough, said: "Last year, we were amazed at the widespread activity which was spontaneously organized by little groups of enthusiasts. This year, we are trying to build on that and develop a grassroots protest movement."



More study urged into oil, coal and gas industries.

# Bigger role in energy industry proposed for social scientists

by David Walker

Social scientists should play a bigger role in gathering knowledge about the oil, coal and gas industries and in commenting on energy policy, according to a Social Science Research Council report.

The report, compiled by Mr. Michael Pomeroy of Pembroke College, Cambridge, for the council's research initiatives board says the focus on energy stimulated by the Arab oil embargo in 1973 will not suddenly stop.

"Certainly energy is judged to be of continuing concern in most other advanced countries and the effort put into energy studies by highly respected institutions in both the United States and Western Europe is substantial. A modest but significant switch of resources into energy studies over the next few years therefore seems to us desirable," the report says.

Mr. Pomeroy is an economist and though aided by members of the SSRC's ad hoc energy advisory committee containing natural scientists, political scientists and others the public domain in his discipline is seen as vital.

For example, work needs to be done on the elasticities of substitution between fuels—at what point, say, a householder would consider changing from gas to electricity. Economists should examine the impact of tariffs on the use of fuels

and develop the theory of resource depletion.

Other disciplines should devote attention to the multinational oil firms and the energy balance as a factor in international relations. Academics of all disciplines have a major role to play in the public debates over the siting of power stations or developing new coal fields.

Mr. Pomeroy sees the SSRC's role as attempting to plug some of the gaps in existing knowledge. The SSRC could act as a broker with the nationalized industries and the oil firms to secure for social scientists access to information.

It has a wider role in encouraging the growth of informed public opinion about matters of energy policy. Much work was being done in the public domain in the oil companies and the various departments of government but, the report said, "we believe the SSRC has a role in helping to ensure that some policy studies do take place in the public domain in the universities and research institutes, so as to help in the formulation of intelligent and democratically acceptable policies."

It recommends liaison with the Social Science Research Council, with the North Sea oil panel of the SSRC, its pollution panel and bodies such as the Harwell Energy Technology Support Unit.

It recommends liaison with the Science Research Council, with the Council, State House, High Holborn, London WC1R 4TH.

# Education colonization 'is past'

An emulation of the British education system may have served the Commonwealth well in the past but the days of colonization were over, Mr. David Young from St. Helena told the recent Commonwealth Youth Conference.

Mr. Young, speaking at the Commonwealth Institute, Kensington, was spinning up the views of delegates who had looked at the question of education and development.

"Many countries of the new Commonwealth have had to redesign their educational systems, some not so successfully, perhaps, but they have woken up to the fact that new aims and objectives are to be realized in order to fulfil their own basic needs and requirements," he said.

"All too often in the past, British educational curricula have been adopted without the environmental

social and cultural differences, as well as the special problems which exist in these particular countries, being taken into account."

For many of the Third World countries basic survival meant no formal kind of education. Their education would take place in the home and fields. Schools for many proved too expensive, did not provide the means for immediate livelihood and existence, and sometimes were not available even if required.

Although changes were being made in the systems of education in Commonwealth countries they still looked to Britain for ideas and it was necessary for many overseas students to study here. "We feel that fees as they stand at the moment are very unfair."

Education and development was one of the topics discussed by nearly 200 delegates from 42 Commonwealth countries at the two-day conference.

# Applicants think biggest is best, guide says

by Judith Judd

Students applying to universities appear to think that biggest is best, according to a guide to degree course offers.

*Degree Course Offers, 1977-78*, the latest in Mr. Brian Heap's surveys of higher education entry qualifications, shows that after Oxford and Cambridge, Edinburgh is the university able to demand the highest A-level grades. Bristol, Durham, Leeds, Manchester, Liverpool and Birmingham are joint third. After this come Bradford and Newcastle.

Of 96 universities and colleges included in the survey, 58 have at least one department able to ask the highest grade in one subject. Twenty-five can ask the highest grade in two subjects or more.

The book shows marked differences in the universities' approach to applicants and for the first time some have been persuaded by Mr. Heap, a careers adviser in a secondary school, to give policy statements about their admissions procedures.

Universities which will interview applicants regardless of the position in which they are placed on the application form include Lancaster, East Anglia, the University of Wales Institute of Science and Technology, Keele and Hull.

In geography, applicants of "average" potential who are Bristol, Durham, Leicester, Liverpool, Newcastle and Southampton as first and second choices received rejections. Offers in the same subject were made by Salford, Swansea and Aberystwyth to "average" candidates placing them third, fourth and fifth.

There are variations in practice between universities in most subjects. In history, Durham and Glasgow will not accept general studies as an A level but Manchester will. There are also differences over interviews in chemical engineering, for instance, Loughborough nor

manly makes offers without an interview, whereas Birmingham interviews everyone.

"The subjects which are being included law, medicine, psychology, veterinary science, history and mathematics. Those which are struggling include mining engineering, ceramics, polymer chemistry, material science, aerodynamics, colour and applied chemistry.

Mr. Heap said last week that he had been a general upward shift in the A-level grades required for law. Durham was now asking for a grade with a B and a C. Pharmacy and psychology had also been able to increase their entrance requirements.

The popularity of medicine continued in medical schools at Aberdeen, King's College, London, East, Nottingham, the Royal Free Hospital, London, Westminster and Dundee all increasing their entrance demands.

In some subjects, the book shows that polytechnics can match universities in their demands. York Polytechnic requires grades as some universities' accountancy course and Bishops and Liverpool polytechnics can do the same for pharmacy. In general, however, the standard required at still lower levels.

Mr. Heap said that one change he had noted was that more universities were making standard offers rather than those tailor-made for particular candidates. "There is increasing competition for places and it is being asked for three C grades irrespective of subject."

In the past, information for Mr. Heap's guide has come mainly from schools and applying students. The latest edition, 36 of the 96 universities approached have supplied information.

*Degree Course Offers, 1977-78*, by Brian Heap is published by Career Consultants Ltd, 1244 Hill Road, Richmond Hill, Richmond, Surrey TW9 1SD, price £3.50.

# TUC says access problem has not been tackled

The Government has failed to tackle the problem of promoting access to higher education, the TUC says in its comments on the Green Paper on education.

"The TUC regrets that the Government has not taken seriously the problem of promoting an alternative form of access to higher education for those who could not be expected to complete for entry on leaving school but who continue to have latent potential for further and higher education."

It supports the view that education is a necessary condition for the creation of a modern technological society but says this is no way reflected in the provision of higher education services.

"Apart from the Open University, most opportunities for further and higher education are closed to adults because they do not succeed at school in obtaining the necessary GC qualifications."

The TUC response to the Green Paper also calls for the payment of mandatory educational maintenance allowances for children wishing to continue in full-time further education after leaving school.

On the training of teachers, the TUC says that improvement of teaching standards by induction and in-service training cannot be achieved without more resources.

In welcome recognition of the principle that substantial numbers of teachers should be recruited from among mature men and women, in the past, the TUC says, the Government has recruited mainly 18-year-olds who are cheap to train and employ.

# Adult fees to rise

Fees for adult education classes are expected to rise by 85 per cent in the coming academic year, according to a new survey of local education authority charges by the National Institute of Adult Education. It shows that authorities taking part in the survey will on average charge 77p per two hour meeting compared with last year's average of just 41p.

# Grant to go round

Southampton University has awarded a £390,000 Science Research Council grant to support a rotating electrical machine project which will be led by Professor Percy Hammond. Mr. Ken Bland, course director of research in electromechanics, said the grant was a "welcome boost" to the project. The grant will be used to purchase a new machine and to support the work of the project.

# Non-teaching staff press for review of recurrent grant

The 60,000 non-teaching staff of British universities are pressing the University Grants Committee and the Department of Education and Science for a full review of the recurrent grant for the coming academic year.

A deputation of the non-teaching staff has already met the Chancellor and Principals of the Universities and Colleges of the United Kingdom and the Secretary of State for Education and Science.

The deputation, which represents the National Union of Public Employees, the National Association of Government Officers, the Transport and General Workers' Union, the Amalgamated Union of Engineering Workers, the United Electrical and Allied Trades Union, the General and Municipal Workers' Union, claims that there has been a cut in real terms of at least 10 per cent in the current grant. It is coming academic year, 1977-78, more than the latest 1976-77 grant. The CVCP also expected to call for a similar grant in September.

A spokesman for the deputation warned that unless the Government increased the grant, the non-teaching staff would be under pressure to leave the universities with the autumn of 1977-78 grant.

The spokesman said the deputation also planned to discuss the 1978-79 recurrent grant level with the Secretary of State for Education and Science.

# A week for wastepaper and 'swans'

The House of Commons will spend a week in the autumn of 1977-78 on a series of debates on the environment. The first debate will be on "Wastepaper and Swans" on October 17th. The second debate will be on "The Environment" on October 18th. The third debate will be on "The Environment" on October 19th. The fourth debate will be on "The Environment" on October 20th. The fifth debate will be on "The Environment" on October 21st. The sixth debate will be on "The Environment" on October 22nd. The seventh debate will be on "The Environment" on October 23rd.



Bryan Davies

"You'll only survive this job with a large wastepaper bin and a commitment to filling it," said Bryan Davies, a member of the House of Commons, who shared an office on what his manner spirited colleagues would call "a swan".

After three years my secretary demolished the morning postbag component in a capacity for judgment on what a rubbish, annual reports and monthly bills from obscure but important organizations is fed to the hard hat and unengaged ears of a group of folk who are all too often, however, the most crucial factors in any organization.

# Don's diary

## Thames valet

Well, it is over. At a brief, informal gathering the other day, sandwiched between two examiners' meetings, the ending of nine years' employment at Thames Polytechnic was symbolically underlined by some of the farewell gifts that were presented to me.

The choice could hardly have been more appropriate: records of *Nature's* four last piano concertos and Gillian's magnificent recording of Verdi's *Requiem*.

The farewells, in fact, had been fluttering numerous in the previous weeks. Groups of my undergraduate students had taken me out to lunch, to the theatre, and to supper. Colleagues and students on the historiography MA course gave me an excellent dinner in the last week of term. All this, and yet somehow I was allowed to escape without the final ordeal of having to make a farewell speech.

Farewell ceremonies and evening meetings over, all that remained was to pack the books in my office into all the cartons I could lay my hands on and ruthlessly sort through nine years' accumulations in my filing cabinet.

I take up my new appointment at King Alfred's College of Higher Education, Winchester, next month, but since Easter I have been spending some time there each week while still continuing at the polytechnic. My predecessor at King Alfred's left at Easter so since then, with loyal assistance, I have had to keep the administrative side of my new department ticking over.

Almost immediately after accepting my new post I took part in the appointment of two new members of staff for next session and subsequently I have attended a steady stream of committee meetings and planning sessions. Although I have not yet found time for discussions with individual students, I have had the same sort of dull existence which I have found in my previous post. It seemed to them that I had decided to resign in hell rather than continue to serve in heaven.

At one level, perhaps, a change of post scarcely makes any difference to scholarly routines. Some academic commitments continue irrespective of one's particular institution—research and writing, reviewing, CNA membership, and in my own case, membership of *Literature and History*, the *Economic History Review* and so on. One feels part of a community much wider than one's immediate colleagues.

And at a very different level, compared with the accompanying traumas of buying and selling houses, the change of post itself at times seems to subside almost into a non-event.

I know, as well as anyone, of course, that the institution, the job, the academic environment, and the opportunities it creates do matter, with higher education is ridden with inequalities, with inequalities of opportunity, with inequalities of access, with inequalities of reward. I remember how an Oxford don who once visited us at Thames to give a lecture put forward his view that the historical research ought to be concentrated on the study of the ancient universities in the two towns.

Some representatives of provincial universities, on the other hand, though they are denied access to the same divine right theory as the Oxbridge don, claim at least the right to lord it over polytechnics.

Polytechnics themselves, however, can be just as snobbish and condescending. With painful exceptions, they consider themselves to be evidently superior academic beings to all their counterparts in colleges of education.

I sensed something of this attitude in the avowed reactions of some of my colleagues when they learned that I had accepted the headship of a department in a former college of education. Like him, I had cur my losses, it seemed to them, and decided to resign in hell rather than continue to serve in heaven.

While not subscribing to these rigid views of the academic world, I recognize, of course, that the two institutions with which I am now linked are different both physically and sociologically and that they are at different stages of development.

The main era of degree planning at Thames was in the late 1960s and early 70s, when the polytechnic was engaged in the full-scale exercise of emancipating itself from its tutelage to the University of London and opening for the greater autonomy offered by the CNA.

At Thames I was in at the start of the first polytechnic humanities degree in 1969 and for several years dealt with admissions; in those pioneering days we used to receive anything up to 1,000 applications, and the journal is established since there was so little competition from other institutions.

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## Real past

On the academic side, a heavy commitment to teaching first-year courses on the nineteenth and twentieth centuries usefully prevented me from becoming a narrow specialist. (My postgraduate research had been on sixteenth and seventeenth-century regional history.) As the humanities course got under way, however, it provided new teaching and research interests in historiography.

There are still some historians who argue that students should concentrate only on an attempt to come to terms with the "real" past and that they should not get side-tracked into unproductive thinking about the factors which control changing perceptions of it.

At Thames, however, we felt differently, and in a way made

King Alfred's College of Higher Education, Winchester, next month, but since Easter I have been spending some time there each week while still continuing at the polytechnic. My predecessor at King Alfred's left at Easter so since then, with loyal assistance, I have had to keep the administrative side of my new department ticking over.

Almost immediately after accepting my new post I took part in the appointment of two new members of staff for next session and subsequently I have attended a steady stream of committee meetings and planning sessions. Although I have not yet found time for discussions with individual students, I have had the same sort of dull existence which I have found in my previous post. It seemed to them that I had decided to resign in hell rather than continue to serve in heaven.



King Alfred's College of Higher Education.

lobbies and that long drive home. Tuesday: My party descended upon the Parliament, home of the believers of various levels of conviction and three heresies. Nothing was to transpire over the next day and a half would be likely to affect such hard won convictions as any significant degree although useful insights were gained into the Common Market policies for the Third World.

Butressed by many months of study of the complex relationship between aid and trade in a British context, the committee entertained no illusions that the commission would provide convincing solutions to the difficult problems involved. Maurice Foley, formerly Minister for Overseas Development in the United Kingdom in the 1960s, was our host and marshalled a team which responded positively to our many probes.

In the commission the all-pervasive principle of the lowest common denominator, judged the issue of aid and trade in the Third World. M La Croix, a Belgian economist, presented a clear analysis of the possibilities in a field sadly neglected in European politics in the past. His only strategy to prevent advanced economies from being rapidly developing industrial power in certain Third World countries was to be based upon regional development.

If textile production is to be replaced by concentration on the export of high level technology and machine tools, then the new development must be precisely in those areas where jobs are threatened. Dinner at the British Embassy followed the familiar pattern of these occasions. The bulk of the evening is dominated by political squabbling and the civilized exchange of generalities. There are always one or two guests, however, who are eager to talk sharper politics and run the usual risks of misunderstandings.

An African ambassador produced a vigorous defence of Africa's

realities. The meeting of the Medical Research Council on which I serve as the sole House of Commons representative was picked up by unions concerned as the closure of a research unit at Newcastle which he could draw in Africa, as vigorously as possible in the debate and intense in the favour of closure was a close one. The Council will face more of these tough decisions unless it comes to terms with factors still widely unappreciated. Flexibility in opening up the profession is drastically reduced as universities offer no soft cushion for redundant staff. There is a great need for a coherent manpower and training strategy.

Moreover, the Medical Research Council pays only lip service to the concept of academic and industrial democracy. No one doubts that the highest level of scientific expertise is a necessary element in the appointment of directors of major research units. Equally clearly units employing significant numbers of qualified people have responsibilities wider than the priorities of the top scientists. Universities have taken some steps to come to terms with the legitimate interests of those below the professoriate: the Medical Research Council has much further to go.

A dash to the house to hear Shirley Williams introduce her (Chairman Paper in a statement, whose unusual length is criticised by the Opposition. They contend that they have had too short notice to be able to respond with the precision they would like.

Some of us on the Government benches thought that the contents were so predictable that our hearts were queasy. The Palace was bear well rehearsed. Both Norman Johnson and Rhodri Iwan Jones were given the floor. The latter, in a Conservative scrupulously fair, months old, so did some of our side.

The author is Labour MP for Bedford North.

## Minipoly

While being in one sense a kind of "mini-polytechnic", the college has the opportunity and the resources not simply to do something distinctively different.

For instance, in my own department one of the most promising developments at present is the planning of a joint degree in history and archaeology (a subject still virtually unrepresented in the CNA degree world).

On a broader front, plans are in their early stages to launch a series of research papers on contexts and connections in the humanities.

But planning new ventures, though exhilarating in itself, is of course simply a preliminary. It is much easier to think about new development than to initiate them, easier in some ways to devise new degree courses than to attract students to them, and easier to plan new courses than to cope with the problems of running them.

Much of the real work still lies ahead; it is an exciting though slightly daunting prospect.

King Alfred's College, with a string of degree courses now validated by the CNA, is now in process of changing its identity and setting to build up a new image and a diversified college of higher education.

One of its main initial disadvantages is that the schools, though familiar enough by now with the polytechnics, are still by and large puzzled by, or ignorant of, these newly designated colleges of higher education.

But on the other hand, the college has many advantages. Above all, it is a small college, and King Alfred's has a fine site and is bound to be one of its main selling

R. C. Richardson

The author was senior lecturer in history at Thames Polytechnic and will shortly take up appointment as head of the history department at King Alfred's College of Higher Education, Winchester.







ACADEMIC DEVELOPMENTS

Meaning of 'there's the rub' fully explained

by Clive Cookson science correspondent

Durham University and Sunderland Polytechnic are joining forces to promote tribology in the North-East. This will involve teaching industrial engineers about friction and lubrication rather than encouraging Geordie tribal rites. Many engineers do not yet know what tribology means, a polytechnic spokesman said, even though designed for it costs British industry from £100m a year. So an estimated 1,500 a year, so advertised their joint MSc in tribology in the local press they had to explain that it was the study of friction, the wear it causes, and the lubricants and bearings that reduce it. The word is derived from the Greek tribes, rubbing. According to the Oxford English Dictionary it was first used in 1966. The MSc two year, part-time course, which starts in September, is for graduate engineers and applied scientists employed by firms in the North-East. It is the first joint postgraduate venture by the university and the polytechnic and is also believed to be Britain's first part-time tribology degree. Leeds University runs a full-time MSc.

The link was developed through the initiative of Dr Andrew Hargrave, who has worked in both institutions. He did a PhD in the department of engineering science at Durham before joining Sunderland's mechanical engineering department. The first year will consist of a mixture of lectures and practicals. The initial 12 weeks will be held at Durham and the remaining 23 at Sunderland, but staff from both departments will share the teaching throughout. The second year will be centred on major design and experimental projects, which may be carried out at the university, polytechnic or, possibly, the student's own workplace. At the same time lectures on specialist topics will be given with the help of visiting lecturers. In addition to the normal industrial side of tribology—machine dynamics, bearing manufacture, hydrodynamic and hydrostatic lubrication, seals, and so on—students will be shown the biological applications by Dr Tony Unsworth of Durham University, an expert on the lubrication of human and animal joints.

It is well known for having solved the puzzling phenomenon of knuckle cracking; the liquid lubricating the finger joints "boils" when the pressure inside the joint is reduced as the joint is pulled apart. The bubble forms and within a hundredth of a second collapses again—making the characteristic cracking sound.

Teachers get industry training

A degree course specifically designed for aspirant teachers of business studies is to be introduced by Sunderland Polytechnic's faculty of education this September.

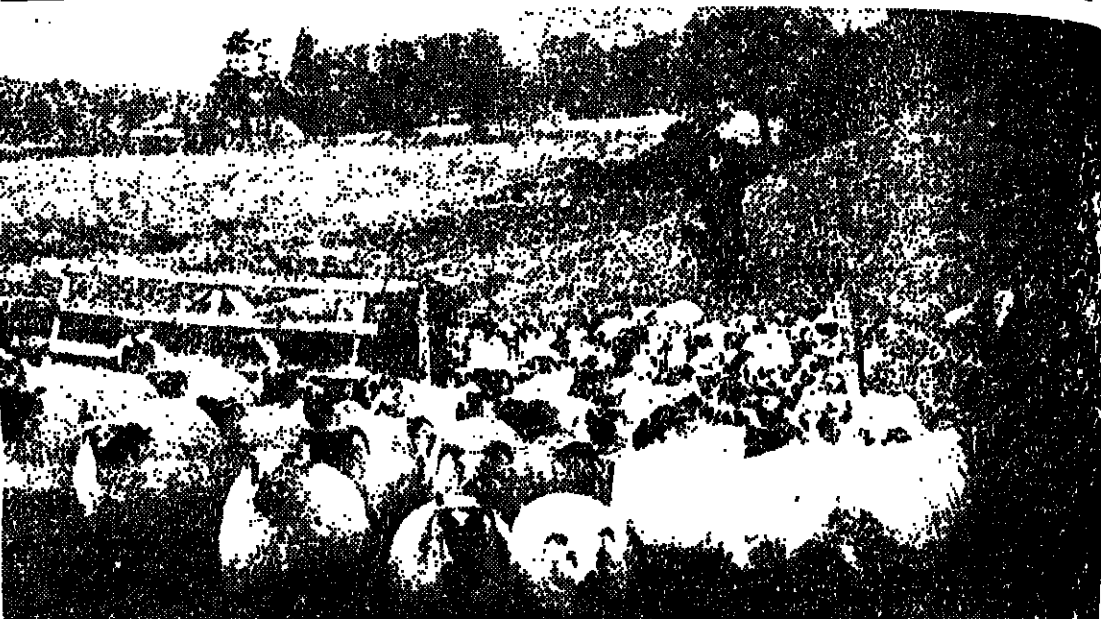
The BEd honours degree in education and business will, says the polytechnic, be the only one of its kind in the country and provides an opportunity for those students wishing to become highly skilled teachers of a now but rapidly expanding area of study now officially recognized as a shortage subject by the Department of Education and Science.

It will produce a new group of graduate teachers capable of working with fourth, fifth and sixth form pupils in business studies including subjects such as consumer education, commerce, office practice, administration, economics and accounts.

A polytechnic spokesman said this week: "For the first time this course will give business representatives the chance to be directly involved with the training of teachers. All students will spend six months of their course with a business organization and during that period they will be given every opportunity of developing an insight into the realities of the world of work."

The course itself will emphasize the crucial importance of a student's commitment to "becoming a teacher" as well as the considerable weight will be placed on the skills and techniques which are the hallmark of professional competence. Close attention will be paid to the skills of communication, planning, classroom management and evaluation to ensure that effective teaching techniques students had acquired.

This knowledge will be acquired alongside students on the BA and BA honours course in business studies. At the end of one year those who, after some experience in schools, decide they do not wish to teach may transfer to the full business studies programme, added the spokesman.



The relationship between people and their surroundings will be explored.

Geography mixed with art

by Frances Gibb

The unusual mixture of art and the environment with geography is to be found on a BA honours course with that title at Lancaster University from this October.

It is intended to provide a useful training for students interested in town and country planning, urban and landscape design and other works involving both visual and spatial analysis.

Mr Ewart Johns, head of the department of art and the environment, says that both geographer and artist are interested in the appearance and structure of the environment.

"Whereas the geographer's interest is in analysing and processing information about the earth's surface the artist is concerned with the creative relationship between people and their surroundings. The new scheme combines the analytical and descriptive elements in the geography course with the evaluative and creative aspects of the art and environment programme."

Students will study the history of art, architecture, sculpture and landscape, the background to modern design, the design of towns, interior design, graphic design, illustration and costumes. Practical courses will cover the elements of art and design, painting and sculpture, graphic design and illustration.

The geography side will include aspects of economic and social geography emphasizing the political and economic forces of the distribution of population in society. Students will have the chance to study physical geography and choose from a selection of topics including the geographical background to regional planning, British urban geography and quantitative analysis of geographic data.

Students will be able to exploit the relationship between the disciplines in a detailed project which starts at Progress 1, will look at their immediate environment on campus or in their neighbourhood, and explore the interaction of aesthetic, social and economic factors.

Compulsory core for poly communications degree

by Sue Reid

A unit-based degree course in communication studies is to be launched by the Polytechnic of Wales' department of social studies this autumn. The BA honours programme will allow students to compare their own course of study tailored to their own interests and abilities with their chosen career in mind.

Validated by the Council for National Academic Awards last month, the three year, full time course is expected to attract 30 students initially and ultimately reach a first year intake of 50.

It will include a compulsory core of communication studies with units covering culture and society, interpersonal communication, theories of social interaction and exploring the analytical approaches to communication. Alongside the core study, which is spread over the first two years, students will have the opportunity of studying three fields covering behavioural, linguistic and mass communication.

As they progress they will gradually narrow their area of study.

Practical work in the specialist field will start in the second year and in the final year they will be able to choose five study options from a range including organizational behaviour, biological bases of communication, advanced grammar, logic and language, politics and the media and functions and forms of radio.

Students will be asked to complete a dissertation in their third year and while the course is not vocational it is hoped that some may go on to do an industrial sandwich placement at the end of their second year, coming back into college for their fourth year.

Mr John Fiske, the course tutor, said this week: "Communication is clearly a central part of human activity and until recently there was no opportunity for study of it at degree level." The course would provide students with a route into careers, he added, in a wide range of areas including television, radio, journalism, publishing, community relations, organizational communications and public relations.

Science subjects the world unite

A large modular course in combined sciences, recently approved by the Council for National Academic Awards, starts at Progress 1, will look at their immediate environment on campus or in their neighbourhood, and explore the interaction of aesthetic, social and economic factors.

The course, which will lead to BSc with or without honours, will provide a broad range of study in astronomy, biology, chemistry, mathematical sciences and physics and there will be minor components from other sections of the polytechnic including information science, art, politics and law.

Students will select two major areas of study to provide a broad based science course, and in other modules within each major area.

Advertisement for 'COURSES' featuring 'STUDY APPROVED' and 'DEGREE' options, listing various subjects and contact information for Welwyn Hall.

West Country planning triumph

A certificate of education developed by a unique planning process will be awarded to the South West. The aim of the syllabus is to provide a course of initial teacher training in further and higher education.

The polytechnic suggests the course may be useful to people teaching in the hospital services or the Forces. Unqualified teachers in secondary schools employed under certain conditions may also be eligible to apply.

The course will last two academic years and will be taught mainly through day release with four weeks full-time. The aim is to help students to become more effective teachers. To qualify, applicants must be employed in full-time teaching or have a substantial part-time commitment and have professional qualifications or a degree.

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The college has been taken over for a few weeks in July and August by the Teachers' and General Workers' Union to train shop stewards and branch officers. This year 620 officials are being taught the principles of free collective bargaining, communications techniques and trade union legislation.

Yet every year since 1953 the college has been taken over for a few weeks in July and August by the Teachers' and General Workers' Union to train shop stewards and branch officers. This year 620 officials are being taught the principles of free collective bargaining, communications techniques and trade union legislation.

The college delights Sir Emrys, a warm-hearted Welshman with a strong sense of fun and a broader accent than most of the general secretary-elect of the TGWU, whose visit to the Cirencester summer school he was eagerly looking forward to—proudly so that Mr Emrys, a man of simple tastes, could accompany Lady Jones on her trip.

Sir Emrys was born into a Carmarthenshire sheep farming family in 1915—a very different sort of agricultural background from most of his students, who tend to come from the eastern counties of England. He was educated at Llandovery Grammar School and the University College of Wales, Aberystwyth, gaining first-class honours in agriculture.

After a distinguished career in the Civil Service as Agricultural Officer at the Ministry of Agriculture and director-general of the Agricultural Development and Advisory Service Sir Emrys was appointed principal of the Royal Agricultural College in 1973, his first educational post.

He joined in September, 1978, to a bungalow in South Wales, but he will keep in touch with the farming world through his chairmanship of the National Cattlebreeders Association and membership of the management board of Hill Samuel's agricultural property fund.

The Royal Agricultural College was founded in 1845 on the Earl of Bathurst's estate a mile from Cirencester on the edge of the Cotswolds. Thus it predates Wales' Britain's next oldest agricultural college, by nearly 50 years.

During this century, as other colleges have become established up and down the country, Cirencester has carved out a role for itself as the only established specialist in the problems and techniques of large-scale farming. Its model is the 2,000-acre mixed farm.

The college has been building up its own land holdings out of accumulated profits and it now has 1,300 acres: 600 adjoining the college and 700 on a very different soil along the River Thames eight miles away near Cricklade. "We need 1,300 acres or more to be credible to the big farmers from the Cotswold counties who send their sons here," Sir Emrys says.

The college farms are used for educational purposes, of course, but their cropping and livestock policies make no concession to teaching. "The policy here is to maximize profits at all times." Net annual profits averaged £40,000 over the past few years. Cirencester is therefore in the healthy position of having no debts and building up capital reserves for further land purchase or capital expenditure.

One recent development on the farm is an 80-cow dairy unit for the milking herd. These new features have made it a well-known attraction for farmers, 4,500 of whom come to see it so far.

The actual milking parlour is an automatic as it is possible to be today. All the cows are milked by a machine which milks and the parlour washes itself out after the amount of concentrates fed to each cow, according to her own requirements. Second, the milk is cooled to its storage temperature of 38°F by passing through a heat exchanger as soon as it leaves the cow. It then sits in a highly insulated tank with further refrigeration until removed by efficient than the conventional method of cooling the milk in a refrigeration tank and continuing to supply electricity to keep it cold until taken away.

The only special feature is a highly sophisticated solution to the slurry removal problem that plagues many dairy farmers. The slurry, of which each cow produces a thousand gallons per year, is stored in a gigantic 267,000-gallon tank and used to fertilize the fields as required, without polluting local water courses.



With 80 per cent of its students drawn from public schools Sir Emrys Jones's Royal Agricultural College is a rather superior institution. Clive Cookson reports.

Agriculture's aristocrats learn the profitable way

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The only part of the unit that is unlikely to be copied by visiting farmers, who take up nearly as much of the cowman's time as milking parlour. It has a one-way mirror that allows students to see in without disturbing the cows.

The whole unit cost about £30,000 at 1975 prices but it is producing about £200,000 worth of milk each year.

The other major development overseen by Sir Emrys is a new academic block opened last year, containing lecture theatre, library and seminar room. It was paid for by three educational trusts—Frank Pankinson, Arthur Hooper and Ernest Bailey—and represents the only occasion on which the college has received major grants from outside sources.

Sir Emrys is proud of the whole Cotswold stone building, which he rightly feels, is far better designed and fits into its surroundings more successfully than the neighbouring 1960s teaching block. But he is particularly proud of his lecture theatre.

Like the dairy, it has three special features, designed in this case for the injection of information to 120 first year rural estate management students rather than the extraction of milk from 180 cows. All three were introduced by Sir Emrys after watching lectures in the college's traditional theatres.

Students were falling asleep in the stuffy atmosphere, so he installed a super-efficient ventilation system that circulates the air eight times an hour and silently sets up very gentle breeze through the theatre. They were gazing out of the windows instead of concentrating on the lecture, so the new theatre has no windows; and those in the back four or five rows were too far from the speaker for him to be able to see whether they were really listening to him, therefore Sir Emrys's theatre is a wide, shallow arc in which the whole audience is close to the lecturer.

He says its original nickname, "the principal's folly", has disappeared after a year's use. Next door is the splendid collection of agricultural books, including several from the sixteenth century, donated by Professor Bobby Bouffour, principal from 1931 to 1958.

The basic course structure at Cirencester was established between the wars. The col-

lege offers five courses: farming courses lasting two and three years, a three year course in rural estate management, and a one year advanced farm management course.

The three-year higher national diploma in agriculture (which includes a year's sandwich period of supervised farm training) is the only one leading to an externally validated qualification. It takes about 40 students a year.

Ninety a year enter the two-year course leading to the college diploma in agriculture. It is aimed specifically at wealthy farmers' sons and, in the words of the college prospectus, "whilst the science content is given to farm and estate management subjects, including farm law and tax planning." The academic entry qualification is five O levels.

The one-year farming course is "particularly appropriate to the more mature student entrants from business or professional men who have inherited or purchased enough money to buy farms. Rural estate management is the largest course, with an annual intake of 120 (who need two A levels). The college diploma attracts students from the Chartered Surveyors, and Cirencester is the main source of rural land agents in the United Kingdom.

The college awards prizes to the best prospective land agent and the best prospective landowner among the final year students. This year both were won by the sons of senior Conservative politicians—Martin Maudling and Andrew Pym respectively. "However much respect you have for their fathers, these two boys are even better," Sir Emrys said. "Andrew Pym has done brilliant work on the effect of capital taxation on land ownership, and Martin Maudling will make a superb land agent."

The success of Messrs Pym and Maudling gave Sir Emrys a lot of pleasure, but he confesses, not as much as the fact that a lad all the public school boys to the college's gold medal for the best second-year student.

The fifth course, advanced farm management, is based on actual case studies. The 30 students investigate the financial and agricultural management of farms and estates, and the college has built up an enormous fund of knowledge about the running of British farms, though the staff do not have time to write it up for publication.

Nor do the college lecturers have the time or facilities to do any agricultural research. The staff: student ratio of 30:720 means that the college has a very high staff: student ratio, which may be attended by 100 or more students. Tutorials are held in the afternoon in groups of 10 (each group meets about once a week). In addition, every student is allocated his own tutor to whom he can take any special academic or personal problem.

Sir Emrys feels that although the statistics level is "very high" it is sufficient to cover the whole curriculum adequately and to give the students enough individual attention. However, the editorial of a recent issue of the college journal stated: "Although the college has a reputation for high standards of education, the fact that this is generally achieved with the minimum of involvement in the course is a sad reflection of the remoteness which exists between the students and staff."

This is necessarily a difficult problem to overcome and can only be achieved by increasing the number of lecturers per student, thus enabling a more effective use of the tutorial system.

In the view of Patrick Mackerness, who went to study rural estate management at Cirencester, an excellent philosophy, politics and economics, at Cirencester, the teaching system works because Oxford, the teaching system average age is 23 or 24, are generally more mature and confident than university students and they know exactly what they are going to do in life.

Sir Emrys called a girl last winter by appointing Cirencester's first woman lecturer, Miss Margaret John, a 24-year-old Welsh farm's daughter with an agriculture degree from Reading University. According to the Daily Mail at the time this revolutionary step provoked two long serving members of the staff to swear never to enter the senior common room again, though Sir Emrys says the report was quite untrue. Now, eight months later, Miss John says she is enjoying her job teaching animal husbandry, and she seems to have won over the doubters. Applications from potential female students. All are refused; and Sir Emrys's status used as a precedent for the admission of women. The college has no suitable accommodation, he says. It has to turn away many hundreds of suitably qualified male candidates, and in any case 80 per cent of existing students are opposed to the idea. The estimate was disputed by Mr Mackerness, who thought 80 per cent would favour women if a vote were taken today.

People do occasionally leave Cirencester because they cannot take its all-male, public school atmosphere, but Sir Emrys says they number no more than two or three a year. Ten times as many are asked to leave after falling out with the staff. Following the college authorities let the student body discipline itself as far as possible, through the union club, and help its own members who appear to be unhappy. In any case most students use their own money to get away at weekends. He gives two main reasons why he will look back on his spell at Cirencester as five of the most rewarding years of his life. "The first is meeting and mixing with the students." The second is the satisfaction of holding a job which is different from shuffling paper in a whitehall. The new teaching block is probably the best thing I've done in my life: the satisfaction comes when you see keen young students using and appreciating it—and the students didn't have to contribute a penny."

How does Sir Emrys see Cirencester's future? Its current momentum will carry the college is financially stronger now than it has been in the whole of its history, and demand for places has never been greater; forward bookings and registrations go up to 1982. The Department of Education and Science college's strongly independent character. "When I first came here I had a lot of help and advice from the DES."

Sir Emrys feels passionately that Cirencester should be preserved, "though not as a museum". Its value lies both in its long traditions, the landed families of this country have been sending their sons here for four or five generations, and in the unique work it does to prepare young men for large scale farming—he is a firm believer in the 2,000 acre farm as the most efficient agricultural unit.

The big question in the long term is whether the traditional education will allow privately owned businesses of that size to continue to exist. But the Royal Agricultural College owners are as well equipped as possible to meet this threat to their assets and the traditional character of rural Britain, by training them to run their farms efficiently and their financial affairs prudently.

Advertisement for 'COURSES' featuring 'BRITISH COUNCIL COURSE' and 'Academic Planning and University Development' with dates '3-14 April 1978' and location 'Lancaster and London'.

Advertisement for 'COURSES' featuring 'STUDY APPROVED' and 'DEGREE' options, listing various subjects and contact information for Welwyn Hall.



Frances Gibb reports on the problems arts centres have in extending their areas of influence

# Torn between the arts and entertainment

The yawning gulf between mass entertainment and the arts as defined by the Arts Council is threatening to prevent a cultural revival in Britain.

This warning is contained in a survey published by the Arts Council this week entitled *Three Arts Centres*. A detailed study of South Hill Park, Bracknell, The Gardner Centre, Sussex University, and Chapter Workshops and Centre for the Arts, Cardiff, which between them last year are receiving more than £250,000 in public money.

Mr Peter Stark, director of South Hill Park, says: "Many of today's artists are saying more and more esoteric things to a smaller and smaller percentage of the population. Unless a national agency devoted very large resources to this gap between entertainment, which is exorbitantly constructed and marketed for mass consumption, and the arts as they are currently defined by the Arts Council, then there could be little hope for a cultural revival in Britain, he says.

One of the main problems is that arts centres, funded by both the Arts Council and local authorities (the latter to a lesser extent) are torn between the two. "A local authority," Peter Stark says, "must be looking for a service to its rate-payers which can be tangibly appreciated by the voters.

"They see an arts centre as part of the comprehensive leisure service for the people, the vast majority of whom, by the Arts Council's own admission, will have little or no interest in the arts, particularly the contemporary arts which the council seeks to promote."

The study shows that partly because of this conflict one of the arts centres' chief problems is, therefore, the local authority in their work. Generally there is a great lack of knowledge about their aims and work, and it was partly to counter this that Mr Robert Hutchinson, senior research and information officer for the Arts Council, undertook the research.

"The past ten years has seen a remarkable growth in the number of arts centres in Britain, there are now about 130) without a parallel growth in public under-

standing of what happens in them, why it happens, and who foots the bill," he writes.

All three centres discussed are very different. (A study was also undertaken on Great Georges, Liverpool, but the staff did not agree to the report being published.) South Hill Park, which is an old house set in 15 acres of its own grounds with a lake and wooded hill, two miles south of Bracknell.

The town population has grown from 5,000 in 1970 to about 45,000 now, and is expected to be 60,000 by the 1980s. New housing estates are still being built and in a few years' time the centre will be surrounded by housing development.

Drama, music, visual arts, print-making, crafts and community work are the extensive variety provided for local residents. They have attracted a high level of attendance: 74 per cent of all new town residents claimed to have visited the Park. Mr Hutchinson says, and a reasonable estimate of attendance for 1975 was between 2,000 and 3,000.

But although the centre had been open for two years, a lot of visitors were new: for 14 per cent it was their first visit and another 34 per cent had been less than four times. Many had come to use bars, restaurants and coffee bars, and some 40 per cent were not engaged in creative activity.

He concludes that the Park provides considerable support for those already active in the arts. But there is the convincing evidence that in the past three years there has been a significant increase in the number of those taking more than a fleeting interest in arts and crafts activities. He adds, however, "that it would be surprising if there had been such an increase in so short a time.

Mr Hutchinson also points out that 30 per cent of skilled manual workers and 26 per cent of semi-skilled workers who visited the Park claimed to have visited the gallery, and 9 per cent and 2 per cent respectively the theatre.

The Arts Council down count had showed that the percentage of manual workers using the theatre or



Exhibition at the Gardner Centre, Sussex University.

gallery was very small (4 per cent the theatre and 6 per cent the gallery). Against this, Mr Stark says, Bracknell is not primarily a manual workers' town.

For him the most significant fact is that 74 per cent of the town visited the centre, and only 9 per cent felt that the atmosphere put them off. He would prefer, he says, to be judged on the success of converting vast numbers of people to the arts for life in the future.

In general Mr Hutchinson concludes that if more Bracknell people were to be stimulated to taking part in the arts, they needed to be involved in decision-making about what services and facilities the centre should provide and in choosing how they should be used and run.

The same problem exists at the Gardner Centre, Sussex University. This, the first university-based arts centre in the county, was opened in 1969 and is set on the campus itself. It draws money from the Gulbenkian Foundation, the Arts Council and to a lesser extent the local authority, and offers theatre, music, dance and visual arts, together with an artists-in-residence scheme.

A survey of student attitudes to the centre showed that all but 5.6 per cent failed to see it as integral to the cultural life of the campus. No one had season tickets, even those who were regular attendees (four or more times) and it seemed that most students went to London for the theatre.

"As well as being culturally peripheral, the building itself is at the opposite end of the campus from student accommodation, and its

publicly rarely penetrates the residences. For many students, the Gardner is a minor manifestation of the "straight" culture industry, which they reject partly because of its "elitism" and partly because of its "irrelevance".

But, if the first duty of the centre itself in contact with the student population, an important part of it, he says.

A new act of faith was needed each year by administrators at university arts centres. A major change in, they was not needed; but a small switch of emphasis with a slightly greater orientation towards the whole educational process and the arts as a process rather than a finished product."

One other possibility was to set up a study group which could be a meeting point for artists and scientists, and would supply scholarly and critical support.

It would also bring in people from outside the university. The main problem here was that the campus was cut off from the town. Mr Hutchinson suggests a large site, possibly also an information outlet in the middle of Brighton, where tickets could be sold.

Nigel Stannard, the director, says that much of the poor response had resulted from the built-in middle class hostility of the building. "The other major problem was money: the university grant was generous, but it was left to the Arts Council to subsidize plays and exhibitions.

The third arts centre, the Chapter in Cardiff, is based in the work-

ing class suburb of Canton, about two miles from Cardiff city centre. Cardiff has a population of over 400,000. Like the other centres, it was recognized in 1973, offers a range of cinema, theatre, music, and other arts.

At the end of July 1975, just under 1,000 members, 60 per cent from the Cardiff area and the rest from elsewhere in South Glamorgan. Most were returned fairly frequently: 61 per cent had been 10 or more times while fewer than a quarter had been less than four times. They were mostly under 35 and 25 per cent, as at other centres, were a danger of "an elitist of sorts".

On the positive side, it is by "a remarkable range of activities," Mr Hutchinson says, "in main weaknesses in its management and administration, which have a failure to attract much local authority support.

But he raises the question whether its basic mix of classical, modern, and contemporary is a wide enough repertoire for a wide range of tastes. He suggests that the right recipe for an arts centre in the city centre.

The survey concludes that general arts centres would be better if their administrators had a change in travel to other local areas, and possibly also an information outlet in the middle of Brighton, where tickets could be sold.

The third arts centre, the Chapter in Cardiff, is based in the work-

# When a schools inspector had to be university-trained

During the last half century there has been no greater change in educational relationships than in those between school teachers and the members of HM Inspectors.

Nowadays discussions between the two groups over such matters as curriculum content are carried on in terms of equality. But up to the First World War most teachers regarded inspectors with suspicion and dislike because of the power they wielded over the financing and running of the schools.

This was especially the case after the introduction of the Education Department's revised code of 1882, when the HMIs view as to what constituted a pass at the annual examinations in reading, writing, and arithmetic could decide the level of government grant for a particular school.

Payment by results system also contributed to the sterile atmosphere of the elementary schools, as inspectors such as Matthew Arnold recognized. In Arnold's view the system turned "the inspectors into a set of registering clerks, with a mass of minute details to tabulate. It is as if the generals of an army were to have their duties limited to inspecting the men's cartridge-boxes."

Yet despite the reservations of HMIs and the hostility of the teachers, it was only in the 1890s that payment by results was abandoned. The block grant system finally eliminated this cause of tension.

Before that, the general secretary of the National Union of Teachers could describe the inspector, in 1892 as "the most autocratic public official west of Russia... his utterance rovers, unchecked and unreviewed... and all that the local school authority or the teacher may do is to listen and acquiesce; protest or opposition to the arbitrary voice is hardly possible."

Another cause of teachers' resentment was the method of recruitment to the inspectorate. From the earliest days elementary school staff had been barred.

As the National Union of Teachers pointed out in 1861, "the inspectors should be fitted, by previous training and social position, to communicate and associate upon terms of equality with the managers of schools and the clergy of different denominations."

Other critics considered that the repetitive and narrow educational particularly suitable in the view of a contemporary he was a "gentlemanly young man with a slight tinge of the fop", and a "regiment of Bismarck."

Similarly, a few years later the third Lord President of the Marchioness of Salisbury, recommended the Marquis of Hatfield for appointment and followed this up a

Following recent debates on the role of universities in planning school syllabuses, Pamela Horn looks at tensions that existed in the nineteenth century

month or two later with the nomination of a friend of his son.

The reminiscences of other inspectors show that the practice continued into the later years of the century. In 1875, A. J. Swinburne, ascribed an undistinguished academic career at Oxford secured a position, as he freely admitted, "through the patronage of the Duke of Richmond, which was procured for me by Lady Weyford, a friend of my aunt, Mrs Views."

Another successful candidate, T. C. Roper, obtained the post of the Duke of Bedford, whose son he tutored. "I am surprised," Roper wrote, "that a firm believer in a university education for inspectors."

In 1892, he wrote to a friend: "Now I believe in the universities and if men say there is not much learning in them (which I deny) at all, if the teachers want to be made inspectors they must get a university training."

Against this background it was little wonder that Sir William Hurcourt could comment that he had met men that had been jobbed more than those of school inspectors."

Yet perhaps the most controversial of the late nineteenth century appointments was concerned with the promotion from the ranks of inspectors to the NUT—a something for which the NUT had been pressing for years.

But the man selected, Sydney Marwin, was not a typical product of the elementary system in either background or training. Whereas most teachers were the offspring of artisans or small tradesmen, he was the eldest son of a middle-class London family and after an education at the Merchant Taylors' school and St John's College, Oxford, he became in 1887 a teacher at an elementary school in Oxford and later in Bow.

He found the drudgery of this little to his liking and in the summer of 1889 he sought the help of his friend and mentor, the barrister and Positivist thinker, Frederick Harrison. The latter was an acquaintance of the Education Department Secretary, Patrick Cumlin, and through him Marwin hoped to secure a post in the inspectorate.

But the most that Harrison could obtain was an assistantship, which was not what Marwin had in mind. But as Harrison pointed out, "I do not know what Marwin had in mind. But I believe the means of candidates for inspector is very large, and the pressure in their favour very great. Whilst the present people in office, our friends will have little weight."

Nevertheless, Marwin did get an assurance from Cumlin that the assistantship would not bar his progress to advancement. It was up to him then had never been a promotion from the lower

rank to the inspectorate. It would seem that Cumlin was agreeing to overturn his department's policy on recruitment on the whim of a very young man who had been a secretary for a number of years.

All that remained was for Marwin to pass the Civil Service examination. In January, 1890, he entered upon his new position. But clearly it was far from a simple matter.

After his judicious pressure, and despite the fact that Cumlin was no longer departmental secretary, his wish was granted at the beginning of January, 1892. He was then, in terms of experience, both as a teacher and an inspector's assistant, was obviously inferior to a number of his fellows.

It was not surprising that one of them should write to him rather than to the Secretary of the Inspectorate. "How delightful it must be to be lifted out of a position which by our secretaries is showing the destitute of dignity, and devoid of responsibility. Your apothecaries will prove a great and, perhaps, a legitimate grievance to most of our colleagues, but in all future discussions will do my best to justify the action of the dept. in this case only."

But some NUT supporters were far less restrained. In 1892 a correspondent to the union's journal, *The Schoolmaster*, sourly observed: "It is well known that

courses to obtain advancement in the firm, showing once more the adverse influence of educational traditions.

To meet the everyday needs of the engineer in production and to provide him with the capacity for advancement to positions of management in the future in his career, the undergraduate requires a base of technical and scientific knowledge which parallels the skills required by persons classified as technician-engineers in production.

Everyday sense distinguishes the professional engineer from the technician-engineer, namely the development of the skills for management.

To produce such a course design world, in the eyes of many engineering educators, involves the inclusion of technical, scientific, and mathematical subjects, which would still insure that the technical education of the production engineer is a satisfactory, much needed in the manufacture of engineering education.

It is certainly true to say that the manufacturing systems engineer, responsible for the evolution of new, reliable systems of production, is also true to say that the production engineer must be familiar with techniques of machine and industrial systems design. But he must first be able to understand processes, materials, methods, and the costing of and quality of manufacture.

The author, is senior lecturer in ergonomics, at North East London Polytechnic.



Before the 1890s, elementary school teachers were thought to lack sufficient "freshness and originality" to be appointed inspectors.

the rules of the department were flagrantly and openly broken to the detriment of the inspectorate. Notwithstanding that he cur a sorry figure at the Civil Service examinations."

Another critic demanded that future appointments should be confined to candidates with at least 10 years' teaching experience. And a question was even asked in Parliament as to why he had been promoted over the heads of more senior colleagues.

Yet however hurtful the controversy may have been to Marwin personally, it had one beneficial effect, in that it opened the way within months for other promotions from the ranks. Although progress from elementary teacher to inspector remained a slow process for a number of years, at least a start had been made.

At the same time Marwin's own career confirmed the views of those who saw the university-trained inspectors as taking a broad view of their duties. He began to give university extension classes from the time he became an inspector's assistant, and later took an active role in organizing courses and lectures for teachers in modern languages, history, and educational science.

In 1929-30 he was professor of modern history in the University of Essex. And the good relations he had forged with teachers at the end of his career were happily now typical of those also enjoyed by his younger colleagues.

The author lectures in economic and social history at Oxford Polytechnic.

find that learning inappropriate material makes such a poorly conceived course unattractive; and it also introduces into production work those with unsuitable personalities and attitudes to the job.

Further evidence for the inappropriateness of the current design of courses for production engineers comes from the survey which I have carried out of manufacturing engineers in relation to job knowledge and tasks; effectiveness of education; and the importance of personality work performance. Among the findings it was shown that the basic knowledge required in the job derived not from traditional engineering science but from production science and technology and management and business science.

The use of particular subjects in production engineering

Subject Group	Mean Ratio of Responses (for 10 persons for each subject listed in group)
Production Science	22.70
Management Science	14.58
Engineering Mathematics	12.33
Business Science	8.31
Modern Applied Mathematics	2.20
Professional & Social Science	1.80

Production engineering courses were found most useful to persons in "desk" jobs, although many had studied mechanical engineering

# Oh, we do like a holiday on the campus

Hundreds of overseas holiday-makers, not to mention their British counterparts, are now discovering that staying on a university campus can be cheap, convenient—and fun.

And as a result the letting of holiday accommodation by universities and university colleges has become big business.

Last year, for example, Stirling University—one of the pioneers of the plan for renting student flats to members of the public during vacations—boosted its income by no less than £475,000 as a result of holiday lettings. And this year the figure is likely to be nearer £650,000.

These figures are derived both from the rental that is charged, and from the increased takings in restaurants and bars. For students, they mean that term-time rentals are about 25 per cent lower than would otherwise be necessary.

They also mean that facilities like catering can be run at a loss during term.

Widely to Stirling, in its attractive loch-side setting, are allowed full use of most campus facilities—including self-service restaurants, lounges, bars, theatre, colour television, sauna, launderette, banks and the post office. The university's extensive sporting opportunities, which include sailing, rowing and fishing on the loch as well as squash, tennis and badminton courts are also used by holiday-makers for a small extra charge.

Lomond, and Perth all within easy reach.

With such an impressive list of attractions, it is no problem in filling the 1,650 beds that it has available.

Stirling's holiday accommodation consists principally of six-bedroomed flats with a lounge, kitchen, bathroom and toilet. Although the flats are single study-bedrooms, they are suitable for families and for groups of youngsters—a suitability which is enhanced by the rental, which this summer is £72 per week per flat.

Overseas visitors have been quick to grasp the economic fact that by staying with five friends they need pay only £12 a week for their room—a rate made to seem even lower by direct exchange rates. Dutch, German and French visitors have been flocking to the university, and this summer 22 per cent of the holidaymakers at Stirling will be from overseas—a proportion that is 50 per cent higher than last year.

Asked why they chose Stirling, overseas visitors have emphasized both the low cost and the proximity to many of Scotland's beauty spots. The reputation of the university as a holiday destination owes much to word-of-mouth—Mr Rikdy notes that there was one visitor from the tiny Dutch town of Nijmegen last year, and eight this year. But, paradoxically, it also owes something to the infamous demagoguery against the Queen by students at the university in 1972.

Altogether, 37 universities and university colleges in Britain let holiday accommodation, and nine of them are packed out during the

summer vacation although it is less easy to find tenants during the winter or at Easter. They are listed through the British Universities Accommodation Directory.

Many of them are also linked by a commercial company which has come on to the scene and now markets inclusive holidays based on university accommodation. It runs the University Holidays, and it is run by a businessman with a travel industry background, Mr John Rees.

University Holidays, who many people wrongly assume to be some sort of successor to NUS Travel, operates from Branchmote House, Sudbury, Suffolk. They publish a colourful brochure with details of self-catering accommodation available at the universities of Aberdeen, Glasgow, Bristol, Cardiff, Dundee, Essex, Exeter, Hull, Keele, London, Oxford, Sheffield, Southampton, Stirling, Strathclyde, Brunel and York.

As can be seen from the list, these universities have been chosen with an eye to varying prospects. The flats or houses are usually self-contained student accommodation consisting of study/bedrooms, a kitchen/dining-room, bathroom and toilet.

The size of the unit varies, but is usually four or five bedrooms. Costs start at about £15 per person per week, and there are also some bed and breakfast arrangements available at from £5 to £7 per night.

Mr Rees claims that holiday-makers will find that they have the campus available to themselves, but this is not the case in the summer when the universities like Stirling, York, Keele, Cardiff and Exeter—

all of which play host to various conferences as well as to Open University summer schools, are at their busiest.

But it is happy ones, at York the university has a large holiday centre, and at Exeter, postgraduate students and summer school students, as well as holidaymakers all mingle on the campus.

Students, then, find that they can benefit as much from the holiday flat as they can from the holiday accommodation. With nobody to manage to obtain this complete accommodation, with nobody to price, however, accommodation could be at a premium level and holidaymakers would be quick to hook early.

They would also be advised to book direct with the vacation property controller at the university, rather than any commercial firm.

An exception might be Wiltshire. There an eighteen-bedroom holiday house just outside Salisbury is available at a premium level and holidaymakers would be quick to hook early.

University Holidays have opened a holiday house as a service, but here the week-long stays cost a little more and offer a great deal more.

Until September, 1975, the company has organized holiday stays which include the use of the facilities (lounges, central hall, tannoy and lecture room) of the university's campus hotel.

The weekly fee includes a social evening lecture on aspects of life.

Robin

# Cutting the cloth to fit the coat

B.M. James on the need for a fresh approach to course design in production engineering

With the general concern about the ability of universities and polytechnics to produce suitably qualified manpower to meet industry's needs, it is appropriate to ask whether the courses designed to meet a particular aspect of these needs—namely production engineering—are being conceived along the right lines.

There have been two traditional sources of professional manpower for the production needs of engineering industries. There have always been some graduates in general engineering subjects who have been transferred into production; and the majority of those engaged in production have been craft and

technical apprentices who have achieved their educational qualifications through part-time study.

Recent changes in engineering education, however, which have taken place under the auspices of the professional institutions, mean that it is now virtually impossible in practice to achieve professional educational attainment through the part-time route. Supply must therefore come from the graduate labour pool.

Yet undergraduate courses in production engineering are a relatively recent development. And many that have been established have been developed from mechanical engineering courses, with the course design having been carried out by a process of aggregation of course units, rather than any fundamental reassessment of needs.

Students have started with a core curriculum in the first academic session that would be found in a general engineering degree programme, or more particularly a course in mechanical engineering. It is only in the second academic session that production technology subjects are introduced, and in the later sessions that business studies and management topics are introduced.

What is really required is a systematic appraisal of the needs of production engineers to be carried out, and course design to be based on this. And to do this is not easy, since it seeks in the main to replace a practically-based system of day-to-day work experience with part-time



Education and Industry

education by one of full time education in an academic situation.

A partial means of providing a solution has been, of course, to introduce the concept of co-operation, which at least provides some contact with industry and everyday industrial tasks; but this is of little use if the conceptual base of the course follows the traditional production engineer's role to produce a good mechanical engineer, and then to train him in the technique of production.

Not only has this assumption little to recommend it in terms of the time spent absorbing useless educational materials but it also prevents the emergence of the right kind of professional engineer. Students with the right personal qualities for production work are likely to

be found most useful to persons in "desk" jobs, although many had studied mechanical engineering

courses to obtain advancement in the firm, showing once more the adverse influence of educational traditions.

To meet the everyday needs of the engineer in production and to provide him with the capacity for advancement to positions of management in the future in his career, the undergraduate requires a base of technical and scientific knowledge which parallels the skills required by persons classified as technician-engineers in production.

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The author, is senior lecturer in ergonomics, at North East London Polytechnic.

Stirling residences on the loch



# Fees and pay: when will the Government act rationally?

A decade ago, all the colleges of advanced technology (CATs) had completed their transmission into universities, and the new universities founded in the period of euphoria immediately pre- and post-Robbins were beginning to find their feet. Student numbers were rising rapidly. The University Grants Committee had moved from under the aegis of the Treasury, but was able to report that it suffered no more interference in its work from the Department of Education and Science than it had from its former sponsor. The financial administration, administered by a body at arms length from Government, was secure.

In 1967 there seemed to be few clouds in the university sky. Even the stories in the popular press about universities were usually favourable. True, there was a row about the Government's decision to allow the Comptroller and Auditor-General and the Public Accounts Committee of the Commons access to UGC and university books, in the interest of financial propriety. But in the event that had little effect upon the universities.

There was also a row about the late Tory Chancellor's decision to recommend sharply increased fees for overseas students, and to take account of the new level in fixing the total Government grant to the universities. But it was essentially a moral question, and the best taken. Let us assume, then, that further increases in fee levels have ensured that fees continue to account for 20 per cent or more of university income. Neither assumption is irrational.

Neither the trade union movement nor the Manpower Services Commission seems to have much interest in paid educational leave; further increasing the number of potential applicants for higher education places, is desirable. Let us, however, assume that by the late 1960s the best taken, to the extent that it is not a moral question, is that the Government is committed by its announced public expenditure plans to at least one more step increase in fees.

In that case, institutions of higher education must, for financial reasons, compete vigorously with each other for students. While we await the outcome of the Oakes Committee deliberations on the financing of the public sector, the effect of such competition on polytechnics and other higher education colleges is unpredictable. But we all are creatures of our own past; I had spoken on many occasions against the discrimination introduced in 1967.

We ended up with the worst of all worlds. We were able to protect home students in receipt of awards by arranging that from 1977-78 fees would be paid in full, irrespective of parental income. But we could not help those who did not receive awards from public funds—including a substantial proportion of post-graduate students, and those taking research, postgraduate diploma, courses or second first degrees. Nor, if the required savings were to be achieved, could we avoid an overall limitation on overseas student numbers.

Such competition would be most acute in the less popular disciplines, or those where there is at present a surplus of places. Some will doubtless argue that we shall get better value for money from the universities if they thus become subject to the discipline of the marketplace. It is equally possible to argue that such a system must result in overcrowding of some universities or faculties and in spare capacity in others, in a lowering of standards in order to compete more effectively, and in the forced closure of some departments and departments which it has been overt national policy to encourage notably in science and technology.

It is not my purpose here to oppose these views, but merely to point out that neither forms the basis of present Government policy on fees. There has no rational basis whatsoever, save the determination that some money spent on higher education must be saved somehow.

It was originally argued that to reduce the allegedly heavy subsidy to overseas students was a justifiable way of doing this in the country's present economic circumstances. In the end, the policy which was adopted entailed a significant transformation of the system of university financing, which few would have predicted, and none had considered in detail. If we turn to the detailed calculation of fee levels, the process loses any semblance of rationality. It starts with the determination of

Gerry Fowler, MP, argues that more foresight is needed in the financing of higher education

an average cost per place in higher education. Average recurrent costs provide the justification for fee increases, although average amortized capital costs are provided, too, in case the Government needs a full-back position. Marginal costs which alone would tell us how much the nation spends on educating overseas students on courses already running in buildings already provided, are impossible to calculate.

The value of university research must be discounted, too. It may be argued that the nuclear power industry, and much of the chemical, computer, and drug industries (to choose only a few examples) rest in their present form on university research—which has thereby paid for a substantial proportion of its own public expenditure on universities. But this is much too complicated. The crude calculation therefore having been made, the next step is to fix a sum for savings, not by reference to the calculations but rather to fit the totals of public expenditure the Government currently allows itself, and then to justify that sum, when translated into fees, as accounting for only a minority proportion of the true recurrent cost of educating a student.

The original object of the exercise, recouping more of our expenditure on higher education from the overseas students who benefit from it, is secured by displacing poorer foreign students in favour of richer.

The original object of the exercise, recouping more of our expenditure on higher education from the overseas students who benefit from it, is secured by displacing poorer foreign students in favour of richer.

This is called planning. If continued over a long period, it must lead to an almost random determination of the precise size and shape of the university sector, irrespective of the wishes of the UGC. From an educational point of view, it only merits its name in that it provides a conclusive proof of the low standard of numeracy in Britain—a weakness which seems to extend to the Treasury, the Cabinet Office, and the highest levels of Government.

Another issue of a decade ago which has recurred in a new and more acute form, and points to similar conclusions, is that of the pay of university teachers. Here, two problems dominated the late 1960s. One was the system of negotiation, which both the Association of University Teachers and I, as Minister of State, thought we had solved when in 1970 we devised the present "Committee A" and "Committee B" procedure.

The second problem was that of the impact of Government pay policy upon university academics. One of the events which first led to accusations of increasing Government interference in the affairs of universities was the recommendation of the National Board for Pay and Incomes that part of the sum available for academics' pay should be set aside to reward teaching excellence, in the evaluation of which students might play a part. A vice-chancellor even resigned in protest, although in the event, this part of the report was never implemented.

In the mid-1970s, the Houghton Report enabled those working in the non-university sector to catch up, and at some levels even overtake university pay levels. Promptly, and before any corresponding adjustment to academics' pay could be made, we entered a new and rigid phase of pay policy.

Everyone suffered, although relatively the worst affected were (strangely) vice-chancellors, whose recommended "top salaries" increase was deferred, while some directors of polytechnics, benefiting from Houghton, overtook them. It was in part the complexity of the procedure for negotiating salaries which occasioned the delays ensuring that academic pay was caught under Phase 1 of pay policy before any corresponding adjustment to academics' pay could be made, we entered a new and rigid phase of pay policy.

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While cash limits on university grants persist, academics have little chance of a settlement above the Chancellor's norm, whatever the unions may extract.

That could of course increase opportunities for Government interference in the affairs of universities; we are not always consistent.

We are now beginning the year of a return to what is popularly called free collective bargaining. The bargaining position of university academics is not thereby enhanced. While cash limits on university grants persist, they have little chance of a settlement above the Chancellor's norm, whatever other unions may extract.

Alternatively, university academics could accept the principle of comparability of pay with specified Civil Service posts (although this would clearly be seen as a further erosion of "autonomy"), or with a range of private sector occupations. But the narrower objective of securing permanent comparability of pay throughout higher education would be acutely difficult to attain, because of the vast range of advanced and non-advanced work in non-university institutions.

The proportion of university expenditure which is formed by pay and pensions will also rise as all greater financial problems there are nationally agreed rates for all grades of non-academic staff. That day cannot be long delayed, if only because the end of rigid pay policy will give the increasingly organized non-academic unions more opportunities to "pick off" recalcitrant universities one by one.

Whether it is desirable or not, the universities must now be seen as forming a national system of development which has proceeded slowly but inexorably since the inception of UGC financing. Recognition that the universities form a national system between the possible discussion between the two interested parties, the non-academic unions, of the structure of pay, as well as of fees, before future university grant settlements were announced.

Such national discussions would parallel UGC visitations, but would be "rather than pay levels" because details of pay would be settled after the announcement, and doubtless at an annual basis.

It is time for wider public debate on these complex issues. We must devise a system of university financing of the unpleasant type which has prevailed for some years, and allow an escape from some of the possible consequences of the mere continuance of the present policies.

In the long run, the regulation of many Government functions, including higher education, may change the nature of the system. But in the long run we are dead.

The author is Labour MP for Woking, and a former Minister of State at the Department of Education and Science.

Furthermore, the rewards of academics may lag behind those to be found in other non-industrial sectors. Thus, if the comparability of senior Civil Service salaries with those in a range of outside employment is maintained, there is no reason to believe that high quality young academics unable to obtain university posts would mainly go to "productive industry" at all.

Much could be lost for little gain—and especially in those disciplines of an applied or technological orientation, which the Government affects to believe have so much to contribute to the nation's well-being through their teaching and research.

It is, of course, possible in principle to devise means of avoiding these consequences. There could for example be full supplementation of university grant in respect of

negotiated salary increases for academic staff. But that would seem inordinately able in the foreseeable future, and it would remove Government's pay as an effective weapon for the control of the "autonomous" universities at public sector institutions for its purpose.

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# Gearing postgraduate grants to PhD prospects

John Sutherland and Stephen Fender discuss the implications of a survey of completed PhDs in English

There are good reasons for reviewing the present state of postgraduate studies in English. The profession itself is scarcely recruiting at present; the PhD is—ideally at least—a book, and academic publishing is in the doldrums; above all, the recent rise in fees has raised the issue of entry into post-graduate study.

Most British undergraduates will continue to have their fees, whatever their level, funded by local authorities, at least as long as the government support grant continues to match the demands of the local authorities' education budget. But only a proportion of British postgraduate arts students have their fees and living expenses paid, and most of these by grants made direct from the Department of Education and Science.

The sudden rise of postgraduate fees, by over 300 per cent in one year to £750 a year for home students and £850 for overseas students, brings the total annual cost of postgraduate study to around £2,250—assuming expenditure on basic food, lodging, travel, and books of about £1,500.

What those figures mean, of course, is that one-fourth students reading for PhDs in English, foreign, or supported by the DES, how successfully, then, does the DES disburse its money?

The British student aspiring to read for a PhD applies to the DES, usually during the summer, for a major state studentship. In practice, the award seems to be made only to those who get both a first-class degree and the backing of his department, though a number of applicants have also suc-

ceeded with good upper second, and especially strong departmental support. When the student applies, the questions of what he is studying, in what degree, and in what subject, are usually academic award is made to the candidate in the early summer, just after the degree results become available. This is often before the applicant has made firm decisions about his or her future course of study. In effect, an unqualified endorsement of any research, a candidate may decide on.

With the DES apparently planning to reduce the number of its awards in order to compensate for the increase in fees, has become even more important. How accurately does the first year postgraduate research? On the face of it, the two examinations seem to call for quite different qualities: the former for the ability to analyse data, to argue a case with flair and originality, to present a brief, the latter for subtlety and the bloody-mindedness needed to keep one working at a solitary task for years.

The first-class degree, in other words, would seem to indicate high administrative skills in the kind of Civil Service and British industrial management. At the postgraduate level the matter is much less clear. Most university English teachers to whom

we have spoken have only a vague idea of what proportion of their undergraduates "succeed". Many might be surprised to be told that of our large sample taken from London University students of English, only about one-third of all entrants finally won through to a PhD. Admittedly this figure is less alarming than it appears; success with the PhD may be anticipated by the greater success of securing a permanent job.

The completed PhD is not the sine qua non for British university teaching that it is for American. (Out of the last seven appointments to the English department at University College, London, for example, six either had incomplete PhDs or no PhD ambitions whatsoever.)

Even with these reservations, however, we feel that some attention should be paid to the success of PhD students. We examined the performance of the 560 research students writing theses in English in the University of London, entering from 1965-1972.

We took "success" to be simply the number of those students completing and passing PhD theses, set against the number entering for the degree of PhD and MPhil. (In MPhil generally do so in hopes of being promoted to read for the PhD.) Candidates who take more than five years over their study we regard as "unsuccessful"; a justification for this is every definition is evident in Table 1.

Since there is no enforced cut-off date for postgraduate students the number of registered withdrawals is small. However, once a candidate has written and passed his thesis, the chances of failing absolutely are relatively small. The typical PhD failure is a student who drags on, year after year, without getting his material in a presentable form.

Of the total number of successful applicants, more than 75 per cent completed their studies within four years, after which the number completing dropped sharply.

One other feature was the discovery that only 20 per cent of those entering completed (190 of 560), but a sample of other British departments of English (one old, one new, one Scottish, and one urban redbrick) suggests this figure

is about average. If one includes the MPhil completions, the success rate rises above 50 per cent. The more remarkable figures, perhaps, are found in the breakdown into countries of those completing into countries of those completing. The most successful candidates came from overseas universities.

There are good reasons why this should be so. The foreign postgraduate is highly motivated and probably has good reasons for wanting to work in London. A large proportion of these students is probably self-financed. Whether they will be able to finance themselves in the face of the recent fee-increases is another matter.

The 34 per cent success rate for British candidates with first-class degrees is also interesting. In the uncertain, often lonely, world of the research student the assurance that one has been awarded first-class by the very system that is now guiding, and will eventually examine, one's work must be counted an enormous advantage. Then there is the most material assistance of the DES student.

Why, then, is the completion rate of our first-class candidates at London only average? Is this not an area where something can be done, where the fees straitjacket which the DES has imposed on post-graduate studies?

In a situation where the grant of state money effectively selects the

British postgraduate, we would propose that the DES reserves at least some of its awards for candidates found desirable by other criteria than undergraduate excellence. This reserved money might be disbursed on recommendation of the department responsible for the postgraduate supervision, its beneficiaries might be people who had put in a year without financial support and who now needed help to complete a previously valuable task; they might be less orthodox or applicants with academically unorthodox backgrounds.

Such grants might be far smaller than the present annual DES awards, covering fees only, for example. This would be particularly useful in the case of post-graduate registrations. A scheme like this would channel at least some public money into specific research through students known to be capable of this research, and wish a better than average chance of completing. It is also diverted some funds from first-class minds thought to be capable of virtually anything, then our own brief investigations suggest that this would be no bad thing.

Dr Sutherland is reader and Dr Fender is lecturer in the department of English at University College, London.

Table 2: Completion rate of research leading to PhD in English (Candidates entering 1965-72, inclusive)

	Number completing	Number registering	"Success" percentage of numbers registering who completed
UK and Eire, 1st class	27	74	31
UK and Eire, 2nd class	58	250	23
UK and Eire, 3rd class and unclassified	5	—	—
Commonwealth, 1st class	31	23	21
Commonwealth, 2nd class	20	37	54
Commonwealth, unclassified	16	53	29
US, Magna cum laude, etc.	4	—	—
US, unclassified	26	35	57
Europe	1	0	—
Near East	2	0	—
Totals	190	560	33.9

Note: \* Magna cum laude, Phi Beta Kappa, etc. are honorary titles denoting roughly first-class degree work.

Table 1: Time taken to complete study for PhD in English (Candidates entering from 1965-72, inclusive)

Number of years	Number of candidates completing	Percentage completing
2	28	15
3	70	37
4	47	25
5	15	9
6	9	5
7	6	3
8	0	0
Total	190	100

# An image of politics as violence, not as authentic conflict

Bernard Crick reviews Howard Barker's *That Good Between Us* at the RSC's new Covent Garden theatre, The Warehouse

The first thing you need to know is how to get there. Their advertisements say "Covent Garden". The RSC know it as the old Donmar rehearsal rooms. Going by streets and by the corner of Earlham and Neal Streets, Seven Dials and you will find it easily; a warehouse indeed, with plastic seats for 200 uncomfortable devotees.

The next thing you need to know is how the Royal Shakespeare Company pay for it. Why does one of our top national companies try to muscle in on the fringe? And why does the RSC have an official stage and planned spontaneities.

That is one view of it. Have I raised the question by saying "warehouse" or have they by opening up "warehouse theatre"? If I had said "warehouse theatre", the answer would be: because they have done it so well.

There is The Other Place at Stratford, and before that there were the late Buzz Goodbody's memorials to two short seasons at the Place in Duke Street, with a number of expeditions to the Roundhouse, including the intense and truly great plays of *Hamlet*. And modern plays of course, good and bad, (and) experimental, and even (very rarely) commercial.

Great companies need no excuse for more of the same great. The RSC have done it so much. The old-out season of the Prospect at the Old Vic, however, shows that London can take even a third first-class company.

The RSC have particular need, not to spread joy more widely, but to spread the company far wider. Shakespeare, as this generation of actors is not to pass back to acting the great William in the

Soldiers are strike-breaking, catching and beating horribly a communist. A left-wing girl (Cherie Lunghi) seductively mocks her mother (Barbara Leigh-Hunt)—the Home Secretary in a Labour government, a crude caricature of Shirley Williams with a dash of Dr Shirley Summerskill.

The mother tries to restrain the secret service man, but with what result? "Don't do the language or you'll end up doing the language or not too bad (Mr Barker's working class all speak, a rigid convention in the fringe, in a vocabulary of three words—fuck, piss and cunt—with tonal modulations).

"There is a democratic officer at large. He drinks with rankers, and that means one of two things, it's either a queer or he's political." The officer is called the Major.

"That's a bang rape scene." "Relax. It's about how the Major (John McDiarmid) is being used by the police." "We are struggling to preserve a free society as we know it." (Mr Barker rises to such heights of satire and licenses them to arrest and kill at will (as we know they would if they could act out their fantasies as we are sitting out ours).

Arrests follow at a funeral (in Kilburn?). There is a slight dramatic digression while daughter opens her legs to another agent who has tried unsuccessfully to seduce her mother, before the daughter and agent takes the now thoroughly democratized McPhee down into hiding in Cornwall.

"I go on bicycles, because bicycles look interesting on a stage; and they go to Cornwall as there can be the last scene of McPhee being dumped from the boat and swimming ashore. Perhaps through desperate agony, the common people will survive their class oppression."

The formal justification for all this is numerical. Howard Davies, who is now the RSC's dramaturg, told Sheridan Morley of *The Times*: "We are being very careful not to tread on the toes of the fringe companies; I've only chosen plays that have a cast of 16 or more and are therefore out of the financial reach of pub theatres."

Mr Davies has also commissioned a new play by C. P. Taylor, *Bananas*, and three plays by his daughter, *They Left the Other Place at Stratford*; Edward Bond's *Bingo*, Bertold Brecht's *Schwank in the Second World War*, and William Shakespear's *Macbeth*.

So perhaps looking at the whole repertoire, beginning with Howard Barker, is trendy bluff and need not be taken too seriously, or simply the price of experiment—but no real experiment, only a bean bag of cinematic and dramatic clichés, images of politics simply as violence rather than as the conflict of authentic antagonisms. The author is professor of politics at Birkbeck College, London.



John McDiarmid as the agent McPhee, and John Nettles as Godber.

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# BOOKS

## Preserving Freud's special status

The Scientific Credibility of Freud's Theories and Therapy by Seymour Fisher and Roger P. Greenberg. Harvester Press, £12.50 ISBN 0 85527 983 3

Freud and the Dilemmas of Psychoanalysis by Marie Jahoda. Hogarth Press, £5.95 and £3.50 ISBN 0 7012 0425 7 and 0437 0

Both these books in their very different ways attempt to determine what in the complex Freudian heritage is worth preserving. Both attempt to solve the problem of validation. The Fisher and Greenberg solution is straightforward and familiar: those theories of Freud should be accepted which have been experimentally investigated. They have surveyed the entire experimental literature devoted to testing Freud's theoretical and therapeutic claims. The bad news first: Freud did not understand women, dreams, or how psychotherapy works. The good news is considerably more abundant: among the topics on which Freud held views that were both strikingly distinctive and "basically sound" are the etiology of homosexuality, the Oedipal and castration complexes in male personality development, the value of the concepts of orality and anality in understanding important aspects of behaviour.

However, these conclusions do not always seem to arise naturally from the survey of the relevant research which is supposed to support them. The authors exercise a worrying degree of discretion in deciding that the trend of the experiments is in Freud's favour. One of their most interesting conclusions is that "personality develops around problems of satisfying and lubricating body needs as they are personally experienced in specific body areas that have social connotations. On the strength of this they deplore a trend for contemporary psychoanalytic theorists to draw away from Freud's body-oriented formulations and to turn to cultural concepts of a less earthly sort. It is a convincing fact that so many studies demonstrate significant correlations between attitudes towards activities linked to organs such as the mouth and anus and certain logically related forms of activities."

But they do not, in fact, present many studies which demonstrate this; so what makes them think they have? One of the reasons for their failure to see the extent of the gap between the evidence they have assembled and the conclusions they derive from it is that they have adopted the ill-advised practice of using the same term in both its natural, literal and its Freudian-theoretical sense. When they speak of oral characters or an oral orientation this sometimes refers to the subject's relation to his mouth, but at others merely his tendency to passivity; similarly with anality. It sometimes means the hardness or obstinacy or parsimony and sometimes preoccupation with the anus and its functions.

When they speak of investigating the unility of persons pursuing different occupations they sometimes only mean investigating the propensity to orderliness of such persons. We are given an account of an investigation into the differences

between students of accounting and students of creative writing. Their "anality" was determined by the degree to which the individual accepts social norms, tries to be compulsively controlled, maintains hostile impulses, avoids ambiguity, etc. etc. What has any of this to do with shiting? Yet they count this study as favouring the conclusion that those who prefer an occupation which calls for careful, systematic and orderly procedures are "anal in their orientation."

(By contrast the investigation carried out by Silverman *et al.* is not open to the objection of tendentious reselection. When authors speak of a verbal stimulus with "deaf incoherent meanings" they mean just what they say. They studied the difference between the responses of homosexuals and non-homosexuals to the phrase "Fock Mommy". I think it would be correct to call it a verbal stimulus with "deaf incoherent meanings". But this level of semantic appropriateness is not often attained.)

One of the measures which strains the imagination is an ingenious series of experiments by Rosenwald. Ability was assessed by the decrement in performance produced when a subject had to identify certain geometrical forms with his hands immersed in a smelly liquid-like substance, as compared to his performance when they were immersed in water.

This is how Rosenwald went about investigating the relation between anality and orderliness. He got subjects to fill out two questionnaires, one of which is described as dealing directly with anxieties concerning dirt ("What do I have on my dirty place? I feel contaminated"; "The other 'indirectly' ("I frequently get upset when my routines are interrupted with"). Finally, he got subjects to solve a problem which involved identifying geometric shapes with their hands immersed in a smelly liquid. Unfortunately, the most apparently pertinent of the anality measures, failed to vary with the measure for orderliness—how much time it took to solve the problem. It is a curious fact that so many studies demonstrate significant correlations between attitudes towards activities linked to organs such as the mouth and anus and certain logically related forms of activities."

In spite of which Fisher and Greenberg write: "One cannot help but be impressed by a study like Rosenwald's which found that the amount of anxiety expressed by persons about anal matters predicted how carefully they arranged magazines that were in disarray." Why are they impressed? Isn't it because they describe the saying "yes" to the question whether one is upset by interference in one's routine as "expressing anxiety about anal matters"?

Had the cure with which the magazines were arranged been predictable from the manner in which subjects handled the "fucal-like" situation, that would have been impressive. This suggests that the authors have been fuddled by their own terminological practices and have forgotten that the word "anal" as they use it need have nothing to do with anuses.

Similar considerations undermine the authors' conclusion that the research they survey "supports the basic soundness of Freud's views as



Sigmund Freud with his daughter Anna in the Dolomites, 1912.

to the rule of castration anxiety in male personality development."

This is the account of an experiment which they feel shows castration anxiety. A psychologist called Schwartz administered the thematic apperception test to 20 homosexual males and as many heterosexual controls. "An analysis was made of the stories obtained in terms of the number of references to castration themes. For example, loss of body parts, personal inadequacy." By what right is apprehension over possible mutilation or concern at "personal inadequacy" treated as a manifestation of castration anxiety? In the next paragraph they say of a study which discovered a tendency among homosexuals to manifest a "sense of bodily inferiority and fear of getting fat while growing up that they can remember from childhood. This is paralleling the dimension of castration anxiety." In another chapter they write: "Just as conjectured by Freud, castration anxiety (fear of bodily harm or attack) is a common occurrence in men."

What these studies really show is that there are psychologists who would sooner part with their own penises than with the concept of castration anxiety. Through the evidence the authors present may be sufficient to warrant continued investigation into Freud's views on the relation of body-erectile attitudes to other aspects of behaviour, it is not strong enough to warrant the shift in the preoccupations of personality theorists from social interactions to body-need vicissitudes for which they call.

Professor Jahoda's purpose is "the preservation of Freud's thought in awareness both of his critics and of the problems of psychology as a science." The most unsatisfactory feature of Professor Jahoda's book is her treatment of what she calls the "all-important problem of validity". This has several sources, the chief of which is her reluctance to follow any train of thought which might upset the traditional image of Freud as the inflexible seeker after truth. However, the doubts she must feel, but won't candidly acknowledge, take their

revenge and surface from time to time, planting her into incoherence and self-contradiction. Professor Jahoda rightly says that the question of validation is central to assigning intellectual status to psychoanalysis, or is it status in psychoanalysis. "If the analysis had become very dependent on the psychoanalyst, it is conceivable that the dialogue is one in form only... the patient producing under the power of the transference the appropriate assessments." Freud was too sensitive and honest an observer to deny this possibility outright.

In this remark Professor Jahoda creates the misleading impression (no doubt because she is herself misled) that Freud was candid about the danger of using clinically produced material as confirmations for psychodynamic theses. But in the twenty-eighth of the *Introductory Lectures* this is how Freud influences the suggestion that "our inferences upon the patient must be based on the objective certainty of our discoveries into doubt." Any one who has conducted psychoanalysis has been able to convince himself numberless times that it is impossible to suggest things to patients in this way.

Putting this aside, how does Professor Jahoda think Freud indulged what she calls his "passionate desire to discover ways in which the validity of psychoanalytic findings could be established?" Being well aware of the unique nature of the psychoanalytic situation Freud sought validity for what he had discovered in other fields which were clearly independent of the relation between an analysis and a patient, in history, philosophy, literature, art, anthropology and religion.

Freud argued implicitly that if what he knew was valid then it must manifest itself somehow in the "objective" social, historical and artistic achievement of mankind.

Just how does Professor Jahoda think that Freud's speculation about the origin of the incest taboo, reminiscent of the crime of Moses, the reason why we are moved by the fate of Hamlet or Lear, could have been expected to provide, as she maintains, a means of "having between Freudian psychoanalysis and competing systems such as Jung's or Adler's"? She does not say.

Professor Jahoda's thesis is not only implausible, it is also difficult to reconcile with her view that "the question of historical truth is almost beside the point of specifying what these works mean for 'psychoanalysis'." Is the importance of "these works" is, as she maintains, that they supply "convergent validity" for the theses of psychoanalysis, how can their historical validity be "almost beside the point"?

She concludes elsewhere that Freud "used his excursions into other fields not to see whether his remarks because she does not think concretely and specifically enough about the theses they are to apply to. Where the claims being ad-

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In her account of the controversy over the value of Freud's achievements Professor Jahoda brings together two distinct sorts of objection to placing a high value on his achievement. One is the objection that psychoanalysis is not a science, (no doubt because she is herself misled) that Freud was candid about the danger of using clinically produced material as confirmations for psychodynamic theses. But in the twenty-eighth of the *Introductory Lectures* this is how Freud influences the suggestion that "our inferences upon the patient must be based on the objective certainty of our discoveries into doubt." Any one who has conducted psychoanalysis has been able to convince himself numberless times that it is impossible to suggest things to patients in this way.

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# BOOKS

## A science of criticism

Temporary Approaches to English Studies edited by Hilte Schiff. Heinemann Educational, £3.80 and £1.00 435 18806 2 and 18807 0

Professor Benjamin Hrushovsky, of the Institute for Poetics and Semiotics at Tel-Aviv University, runs a journal for the study of literature, called *Journal of Literature*, of which the fourth issue has recently appeared. Discussing the four issues in the *T.S.*, Anthony Thorby pointed out that Hrushovsky's journal is a serious attempt to achieve a precise objective understanding of a concept of literature as "writing as a process of producing a certain level of value and seriousness, written in the past." Professor Williams wants to widen this definition, to "push beyond the limited definitions of an act of communication and with all the forms of discourse, in speech and writing, as acts of social communication, and he wants the critic to concern himself primarily with the processes of production (as opposed to consumption) of such discourse.

We must attend to "the whole range of writing", we must understand how they reflect the meaning of the text, rather than the exigencies of space, the brevity and the lack of any concrete illustrations (except the throw-away familiar example of Marx's preference for Balzac and the argument for the right-wing conservatism of near-fascist Pound, Yeats, Eliot and Lawrence can make for gracefulness, new values, new significance in direct literary terms by creating new conventions and new notations." He ends by emphasizing the pre-eminence of discerning the structure of a text, rather than its content, its "feelings." To all this we are inclined to say, "Yes—well, all right—go ahead—that seems interesting, rather than 'Ah, so that's the first exciting method'."

Leon Edel continues an engaging dialogue about the nature of biography that is a voice from an earlier generation. It stands out from the rest of the book in its aim of showing how and why biography requires special kinds of insight and structure, with some interesting examples from Auden's *Certain World* which is effectively searched for the frequent autobiographical "give-away."

Jonathan Culler writes with model clarity on "Structure and Literature" and makes the case for a structural poetics, which "must acquire what knowledge must be postulated to account for our ability to read and understand literary works". He shows very persuasively, with some simple examples, how "structuralism leads us to think of a poem not only as a self-contained organism but as a structure which has meaning only in relation to the system, or rather, to the 'institutions' of literature which guide the reader." He discusses and illustrates the "various codes of expectation" which guide us in reading. This is an excellent essay to put in the hands of an innocent but interested student who wants to know what structuralism has to offer to the literary critic; a bibliography tells him where to go from here.

Christopher Butler's *Tragedy and Moral Education* tries to show "how literary in general and tragedy in particular has profound moral effects provided we accept that literature throws light on the way we see the world and the way we see ourselves about it." It is all very "pre-scientific" in Professor Hrushovsky's sense and in some respects even more old-fashioned in its style of argument and its objectives than Leon Edel's dialogue. One wonders about the linguistic sensitivity of someone who can write about "the main protagonist" of a tragedy. Butler concludes that "we can look to tragic literature to gain a much more complex and penetrating picture of the world than we possess in our ordinary moments." There needs no ghost, my lord, come from the grave to tell us this.

One would surely agree, somewhat reluctantly, with Terry Eagleton that "the aim of Marxist criticism... is to expose the ideological tendentiousness implicit in the familiar arbitrariness of the social and local roots of contemporary English in the educational process of our civilisation. No other contributor speaks in this tone or makes this kind of point.

Raymond Williams is concerned with changing definitions of literature, from its earlier, less restrictive definition as *imaginative literature* to its later more restricted definition as *imaginative literature* and a certain level of seriousness. This finally led up to a concept of literature as "writing as a process of producing a certain level of value and seriousness, written in the past." Professor Williams wants to widen this definition, to "push beyond the limited definitions of an act of communication and with all the forms of discourse, in speech and writing, as acts of social communication, and he wants the critic to concern himself primarily with the processes of production (as opposed to consumption) of such discourse.

The British critical tradition looks in criticism as an art rather than a science, and its characteristic method is a special kind of what can be called *loaded description* of a literary text conducted in such a way as to draw attention to its echoes and reverberations, its structural harmony, its phonetic and rhythmic effects, and to show how all these elements cooperate to produce in the reader a certain sense of illumination and deepened awareness of some aspects of experience. There are special occasions when it is thought necessary to show how a particular work or body of writing from the psychology of the writer or the society in which he lived, or from the interrelation between these two, has to be more biographical and historical than critical significance. In general, we work in the country with an "affective" critical method, seeking by persuasive kinds of paraphrase to lead the reader to a more intense and sensitive kind of response to a given work.

Many of our younger critics now feel uneasy about this sort of approach, assaulted as they are on all sides by translational and comparative theories claiming to be more scientific and using a highly technical specialist vocabulary in a style that defies quick reading and immediate understanding. Is it not time we joined in the search for more scientific approaches to literary studies? Or, as Hilte Schiff puts it in her introduction to the book under review, "the transformation of literary studies into a science is not only implausible, it is also difficult to reconcile with her view that 'the question of historical truth is almost beside the point of specifying what these works mean for 'psychoanalysis'.'"

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She concludes elsewhere that Freud "used his excursions into other fields not to see whether his remarks because she does not think concretely and specifically enough about the theses they are to apply to. Where the claims being ad-

vanced are prophylactic, diagnostic or therapeutic a certain circumspection is called for. Would Professor Jahoda extend her indulgence to psychosurgery and psychopharmacologists, or is it status in psychoanalysis, or is it analysis and how very dependent on the psychoanalyst, it is conceivable that the dialogue is one in form only... the patient producing under the power of the transference the appropriate assessments." Freud was too sensitive and honest an observer to deny this possibility outright.

In her account of the controversy over the value of Freud's achievements Professor Jahoda brings together two distinct sorts of objection to placing a high value on his achievement. One is the objection that psychoanalysis is not a science, (no doubt because she is herself misled) that Freud was candid about the danger of using clinically produced material as confirmations for psychodynamic theses. But in the twenty-eighth of the *Introductory Lectures* this is how Freud influences the suggestion that "our inferences upon the patient must be based on the objective certainty of our discoveries into doubt." Any one who has conducted psychoanalysis has been able to convince himself numberless times that it is impossible to suggest things to patients in this way.

Putting this aside, how does Professor Jahoda think Freud indulged what she calls his "passionate desire to discover ways in which the validity of psychoanalytic findings could be established?" Being well aware of the unique nature of the psychoanalytic situation Freud sought validity for what he had discovered in other fields which were clearly independent of the relation between an analysis and a patient, in history, philosophy, literature, art, anthropology and religion.

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# BOOKS

## Warming the teapot

E. M. Forster's *Howards End*: Fiction as History by Peter Widdowson. Sussex University Press, £3.50 and £1.75 ISBN 0 85621 067 6 and 068 4

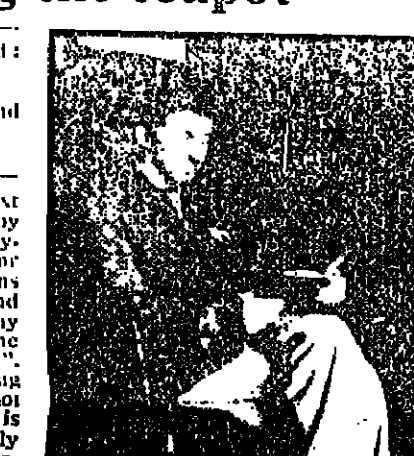
This is the sixth title in the Text and Context series, edited by Arnold Kettle and A. S. Horby. It is described as a "series for students" and the dust-jacket begins with the claim that "More and more often students are asking why they should be expected to read the established classics of literature." Apart from cynically wondering whether that statement was not written several years ago, one is bound to see it as a transparently pedagogic device. A question to which a number of lively and distinguished critics have been invited to give real answers.

In the case of *Howards End*, it is a bit premature to label this favourite but notoriously flawed, but nowhere convincingly explained, modern work as an "established classic of literature". Forster's reputation has reached unexpected heights in the past thirty years, but it is by no means safe from the sceptical slings of Peter Widdowson. It is in fact about the problem of the modern world to the "text" of social reality as Forster described it, a "fine liberal-humanist novel" is the conventionally intended one.

This might seem strange since the author mounts a jarring critique of liberal humanism, but in practice the weaknesses of liberal humanism are condoned those of *Howards End*—and vice versa. Where Forster was once seen as the supreme exponent of "personal relations", he now sustains a familiar, retrospective diagnosis of "liberalism in crisis".

The textual criticism in this book is always perceptive, sometimes outstandingly so. Widdowson does not only expose the intrusive plotting of *Howards End*, the blindness of much of its rhetoric, the "faking" involved in the novel's affirmative ending. But he fails to draw the obvious conclusion from these faults, and his surmise in analysing the literary text is by no means reflected in the presentation of "context", which takes up the first half of the book.

What is relevant in a novel's "context" is a matter of critical choice, and is bound to be partially subjective. Peter Widdowson does not give a number of contextual events, many of which happened after *Howards End* was published; I personally would rather have read more on the society of the middle classes, Anna, and not merely George Derwentfeld. But any approach must be weakened by unexplained references to such things as "Lloyd George's Mansion House speech" or "the Cambridge 'Carbolic' case", which are all too likely to be copied uncomprehendingly into students' essays. Nor should a textbook like this spell Lloyd George with a hyphen, or give the date of Geis-



E. M. Forster

worthy's *The Island Pharoases* in 1900. Forster's eventual abandonment of novel writing is several times mentioned as part of the "context", but nowhere convincingly explained, but parallel that Widdowson draws with luridly evened-out particular issue. It is a pity that a crudely-dumped out of a vicious public controversy and went on to become a major poet. Forster's creative impulse failed, or maybe his nerve. We are often told that the civilisation he understood had broken up; as Widdowson puts it, "For Forster, the world had gone wrong after 1914". Forster's "The Machine Stops" is a genuine, but so was his prolonged enjoyment of a comfortable, civilized existence at Abinger and King's.

Hardy's novels apart, the "context" offered by this book contains very few contemporary literary texts. For these students and others reluctant to accept *Howards End* as an established classic, literary comparison remains the important test. Is Forster's pastoral vision really superior or earlier writers such as Joffrey and Morris? Is his portrayal of the commercial classes really more daring than that of his fellow Edwardians? Can it be said to put in a prophetic eye on the future, beside the best of Lawrence?

All these questions ought to be put, and where they are not put, the issue of literary value is dodged. The consensus about *Howards End* which this book assumes is (I venture to suggest) largely imaginary. Do we really need to sift out students from Lawrence's outburst ("Business is no good"), which is not quoted here? And what about this comment, which beautifully captures both the novel's charm and its ultimate effectiveness: "Putting my weakest books to the wall last *Howards End* and had a book into it. But it's not good enough. E. M. Forster never gets any further than warming the teapot. He's a rare fine hand at that. Peel this teapot, but there's no tea in it. No tea, but there's no tea in it. What a blessing that Katherine Mansfield did not know she was snubbing one of the 'established classics of literature', which generations of students would be taught to reverse!"

Patrick Parrinder

## The Psychology of Consciousness

2nd edition Robert E. Ornstein

320pp., paperback, 0.15.573082.7 £4.20/\$5.95

The second edition of this extremely successful and influential work in psychology examines the nature of consciousness, taking as its major organizing principle the functioning of the two hemispheres of the brain. Writing in a compelling highly readable style, the author discusses the results of research on left-right hemisphere functioning and raises implications about it for psychology, education, life feedback and other areas of human experience. Dr. Ornstein goes beyond Western scientific thinking and research to incorporate Eastern psychology and their pronounced emphasis on "right hemisphere" activities. The book thus provides a synthesis of two modes of consciousness and knowledge, two approaches of experiencing—sequential and holistic, rational and intuitive, linear and nonlinear, Western and Eastern.

Harcourt Brace Jovanovich Ltd. 24-28 Oval Road, London NW1, England

David Daiches

## People describe other people

Personality Description in Ordinary Language by D. B. Bromley. Wiley, £9.00 ISBN 0 471 99443 X

It is the fate of many of those who work in the educational, counselling and social services to read and to write personality descriptions. The length and content of a description depends on its purpose: for example, to commend a student to a university, or to justify a recommendation about a young offender. Underlying the superficial differences, however, is a common

purpose, namely to enable those who read the report to understand the person described. It is therefore pertinent to ask whether there are any common ground rules. Should the report be restricted to interpretation of psychiatric data? Should one adopt a particular theoretical stance and use the terminology of Freud, or Rogers, or Eysenck? Or should one just write what comes to mind in plain everyday language?

To these questions, Professor Bromley returns a firm "no". To quote his own words: "The report of a case-study should be written in good plain-English, in a direct, objective way without, however,

losing its human interest as a story. The writer should present the individual's point of view, rather than a barrier presents his case in a court of law" (pp 171, 172). Thus Bromley tries to avoid two extremes: the short-sightedness that results from describing a person in the language of a particular theory, and the confusion that results from undisciplined use of ordinary language. It is the systematic study of person-descriptions in ordinary language that yields the categories which in turn supply the necessary structure of the case-study. As language-users we are held to a high standard of psychological understanding of other persons and when we unpack the store in a disciplined,

scientific fashion, we find the complete descriptive apparatus and some elements of a general explanatory theory of personality. Bromley's experiments yielded 30 categories that are heavily used when people describe one another. They fall into four groups: external characteristics (e.g. physical appearance), internal characteristics (e.g. motivation), interpersonal characteristics (e.g. social position), and ethical evaluation. The categories were identified by the content analysis of personality descriptions written by 240 subjects between 20 and 70. Roughly half the book is devoted to explanation and captions illustration of the syntax-based method of content

analysis. The following chapter shows how the 30 content categories provide the structure of the descriptive apparatus. Perhaps the greatest merit of this book is its thoroughgoing account of the major ways in which people actually describe one another. This approach is superior to accounts of the dictionary, or doing word-counts of literary specimens. As a whole, the book itself is readable, sometimes lucid and sometimes times lucid and sometimes forbidding. The chapter on "Characterization in Fiction" does not fit and has been omitted.

John Bradshaw

Frank Culler

John Bradshaw



BOOKS

Out of the slave ships

Black Culture and Black Consciousness: Afro-American Folk Thought from Slavery to Freedom by Lawrence W. Levine

A Harvard professor once described folklore as "the most sentimental and the most anti-intellectual scholarly discipline in America".

It is a ground-breaking work, but not in the sense the publishers claim. The traditional notion that slavery was "an unending round of degradation and pathology" has already been demolished by Blashigame and Ganewess.

With such an interesting and imaginative study, it is simply a pity that we still learn very little about the antislavery work-and-file, and that the comparisons with the language and preoccupations of the anti-abolitionists are not more extensive.

The examination of blacks in the American economy after 1865 by Robert Higgs. Higgs, a well-known, conservative, neo-conservative, is more concerned with groups and themes rather than individual motivations or fortunes.

Revisionsist scholarship has long focused on the political achievements of the blacks during Reconstruction, while depicting its economic failures and the effects of subsequent discriminatory legislation.

While in no sense denying the deprivation of large sections of the black population as late as 1914, the author is at pains to emphasize the achievements of blacks in terms of land ownership, improved standards of living, the acquisition of job skills and income increases.

Christine Bolt

Indian version

The Spanish Conquest of Peru through Indian eyes, 1530-1570 by Natlun Wachtel

When it first appeared in French in 1971 this book drew immediate acclaim both from reviewers in the Latin American field, and from devotees of the *Annals* approach to history.

Professor Wachtel's subject—the cataclysmic conquest of the Inca empire in Peru in the 1530s and the establishment of colonial rule—has attracted many. The story of the conquistadores is well known, but we have understood little of what the conquest meant to the Indians.

In part two Wachtel examines more closely the "destruction" of Inca society after 1532. The structure of the Inca empire, ethnic, social, political and religious, formed, he suggests, a coherent system and changes within it were a consequence of its own internal logic.

The impressive first section, "The Sacred World of Black Slavery" contains a sophisticated consideration of spirituals, in which God, Satan, Heaven and Hell were concrete presences.

More seriously, Schwartz is inconsistent in praising both the principle of fundamental law and the flexibility of his key decisions. For the United States Constitution is subject not only to the vagaries of the Supreme Court but also to the process of amendment.

He remarks that England prosecuted Thomas Paine for libel in the very year, 1792, when the United States Bill of Rights was ratified.

The Great Rights of Mankind is clearly written, concise and scholarly, and includes several useful chronological tables. It contains a shrewd assessment of mental-law, and was upheld by the Supreme Court in 1972.

Ralph Willett

learned the language and he to imitate Castilian styles of dress and behaviour. Such acculturation level most Indians reaffirmed their commitment to tradition.

To conclude the analysis of race and acculturation the author again adopts a wider perspective and compares the Indian experience in Peru both to Mexico and to the peoples on the frontier of its empire who successfully resisted Spanish domination.

A review of this length cannot do justice to the wealth of ideas in the book. Occasionally one wonders whether too many conclusions are being drawn from fragmentary data, but the imaginative and penetrating nature of the hypotheses Wachtel suggests, together with his explicit awareness of the source limitations, justifies his approach.

It would be a pity, though, if Latin-Americanists read his book. Some of the themes discussed—race, class, collaboration, millenarianism and acculturation—occur elsewhere in African and Latin history. But the book deserves a wider audience.

R. M. Miles

Civil liberties

The Great Rights of Mankind: A History of the American Bill of Rights by Bernard Schwartz

Schwartz begins his legal-constitutional history of the guarantees of United States civil liberties by drawing attention to the shortcomings of their English antecedents.

More seriously, Schwartz is inconsistent in praising both the principle of fundamental law and the flexibility of his key decisions. For the United States Constitution is subject not only to the vagaries of the Supreme Court but also to the process of amendment.

Schwartz emphasizes the fact that the English Bill of Rights (1689) and Bill of Rights (1689) were mere assertions of liberties, not guarantees.

Finally, there is surely something sad about a book on civil liberties written by a man who has written a book on the "Great Rights of Mankind" and who has written a book on the "Great Rights of Mankind".

Rhodri Jeffryes

Introduction

Linear Algebra (second edition) by Michael O'Nan

Linear algebra is now one of the basic mathematical disciplines. Its basic techniques such as matrix algebra and the solution of systems of linear equations are as widely taught as is the calculus.

The material covered in linear algebra texts is fairly standard in the presentation. The strength of O'Nan's book is the wealth of examples and exercises. The author has chosen many illustrative uses of linear algebra from chemistry, economics, probability, electrical circuits, demography, etc.

There are some idiosyncrasies in the presentation of the basic skills in the first chapters: "Systems of Linear Equations", "Vectors and Matrices". "Determinants" Linear equations are briefly treated using Gaussian elimination but without any particular order, possibly starting with the third equation to eliminate the second unknown.

David Sigmaster

Fluid motion

Physical Fluid Dynamics by D. J. Tritton

A reviewer actively engaged in research will always find it nearly impossible to give unqualified approval to any textbook on his own subject, but Dr Tritton has produced one that matches my prejudices much better than most.

For the most part, books on fluid dynamics fall into two categories: those intended for applied mathematicians, but undergraduate courses are not well served with textbooks on experimental fluid dynamics. The omission is most serious for students of physics who are interested in natural flows occurring in the atmosphere or in the ocean, and Tritton has written a book that is physical and experimental in its approach rather than mathematical or technological.

Only incompressible flows described by the Boussinesq approximation to the equations of fluid motion are treated, that is, the flow Mach numbers are small and the temperature is determined by the pressure. Throughout, much use is made of the principle of dimensional similarity, and the limitation imposed by the approximation is clearly expressed in terms of non-dimensional parameters.

The experimental approach to fluid dynamics is emphasized by the late appearance of the Navier-Stokes equations in chapter five, after fairly detailed descriptions of flows in pipes, past circular cylinders and over airfoils. The Navier-Stokes equations are treated in chapter five, after fairly detailed descriptions of flows in pipes, past circular cylinders and over airfoils.

A. A. Townsend

BOOKS

Probability

Elements of Probability Theory by R. Fortet

There are two really good ways of writing a text on a well-known topic—with the enthusiasm and dash of a young man, and with the wisdom of a lifetime of teaching.

This is a translation of a well-known book originally published in 1960. The preface refers to a second volume but to my knowledge this never appeared. Of the six chapters in the book the first is elementary and deals with its application to analysis and its application to genetics and statistical mechanics.

The key to the whole presentation is the analysis of areas into "quasi-squares" and of volumes into "quasi-cubes" so that the "theorems" in this book really are true and are proved for a wide range of class of curves and surfaces.

Finally, the book is reproduced from typescript, the presentation is poor and the translation leaves much to be desired—in consequence the price is ridiculous.

R. J. Roed

Motivating maths

Vector Analysis by N. Kemmer

There are two really good ways of writing a text on a well-known topic—with the enthusiasm and dash of a young man, and with the wisdom of a lifetime of teaching.

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C. W. Kilmister

Materials science

Physical Properties of Materials by M. C. Lovell, A. J. Avery and J. Vernon

For some fifteen years or more there has been a debate about the existence of a genuine undergraduate discipline known as materials science and whether it is better to study a full course in honours level physics, chemistry or metallurgy, and to study a more general course in materials at the postgraduate level.

This book aims to provide an introduction to materials science and a basis for appreciating new developments. It is claimed to be suitable for first and second year undergraduates and even for FRC students. The choice of topics is wide and several of the chapters are very basic and intended to make some fundamentals available.

The book covers bonding and defects in solids and amorphous materials. The chapter on materials preparation gives an excellent summary of the main methods of purification and crystal growth, as well as sections on polymers and amorphous semiconductors.

The book makes a good attempt to provide an introduction to the subject and apart from a few criticisms the positions are sound. It would be a useful supplement to a lecture course.

C. A. Hogarth

Mathematical physics

Mathematical Methods for Physics by W. W. W. W. W.

The level of mathematical rigour is relatively low, and the author has made a conscious attempt to write a book that is comprehensible to the average student. Some arguments are made in greater detail than in comparable texts, and all the mathematics is highly applicable.

The price is very high even for a very lengthy paperback, and it is difficult to make a recommendation for student purchase; yet there are some good features which make it worthy of intensive undergraduate or graduate scrutiny.

J. A. D. Matthew

Correction

The review of E. J. Hall's *Radiation and Life* in *The Times* for July 22, 1977, by Professor Joseph Rothblatt and John Robins, as printed.







Universities continued

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GRADUATE required, preferably with research experience
Specialist interest in international accounting and financial methods...







Universities



Applications are invited for the following posts, for which applications close on the dates shown. Salaries (unless otherwise stated) are as follows: Professor \$430,182; Research Fellow \$214,345-241,874; Lecturer \$149,545-164,854; Senior Lecturer \$190,500-202,000; Lecturer \$149,545-164,854; Tutor \$101,518-111,083. Further details, conditions of appointment for each post, method of application and application form, where applicable, may be obtained from The Association of Commonwealth Universities, (Appl), 26 Gordon Square, London WC1H 0PF.

University of Adelaide LECTURER IN MUSIC (Ref. 7.3) From outstanding lecturers to teach students in degree courses and industrially sponsored courses. The University is seeking a lecturer to teach students in degree courses and industrially sponsored courses. The University is seeking a lecturer to teach students in degree courses and industrially sponsored courses.

Flinchers University of South Australia SCHOOL OF SOCIAL SCIENCES LECTURER/SENIOR LECTURER IN SOCIAL ADMINISTRATION (Two Positions) Candidates should have qualifications and experience in the provision of social welfare services to enable them to teach and coordinate a course in social welfare services to enable them to teach and coordinate a course in social welfare services.

Australian National University Research School of Biological Sciences MOLECULAR BIOLOGY UNIT—RESEARCH FELLOW The Unit is conducting the molecular biology of post-transcriptional control of gene expression. This includes the synthesis of the messenger RNA and the mechanism of its transport to the site of protein synthesis.

University of Sydney LECTURER IN LANDSCAPE ARCHITECTURE The applicant should be qualified to plan a new undergraduate course in Landscape Architecture and will also contribute to teaching in the undergraduate Architecture course and in the

UNIVERSITY OF THE SOUTH PACIFIC—FIJI Applications are invited for post of LECTURER/LECTURER/ASSISTANT IN HISTORY AND POLITICS (Post 77/42) Salary scale \$2120-23000 with full board and accommodation.

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postgraduate Town and Country Planning courses. Applicants should have a broad general approach to the design of landscape, sound practical experience in landscape design including work on environmental impact studies and resource management, and teaching experience. Innovative ideas will be encouraged. Closing date: 31 August 1977.

James Cook University of North Queensland LECTURER/SENIOR LECTURER IN CHEMISTRY (INORGANIC) Applicants must be capable of taking responsibility for lecturing and have experience in the application and teaching of a wide spectrum of inorganic courses. Candidates should have a B.Sc. or equivalent with a major in inorganic chemistry and a minimum of 12 months' postgraduate research in inorganic chemistry.

Monash University Melbourne SYSTEMS OFFICER PROGRAMMERS IN ADMINISTRATION DATA PROCESSING Monash University has a current requirement for two systems officers in its Administration Department. The successful candidates will be responsible for the day-to-day operation of the computer systems used in the Department.

Australian National University Research School of Biological Sciences MOLECULAR BIOLOGY UNIT—RESEARCH FELLOW The Unit is conducting the molecular biology of post-transcriptional control of gene expression. This includes the synthesis of the messenger RNA and the mechanism of its transport to the site of protein synthesis.

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UNIVERSITY OF THE SOUTH PACIFIC—FIJI Applications are invited for post of LECTURER/LECTURER/ASSISTANT IN HISTORY AND POLITICS (Post 77/42) Salary scale \$2120-23000 with full board and accommodation.

UNIVERSITY OF SINGAPORE HISTORY Lectureship Applications are invited for appointment to a Lectureship in the Department of History. The successful candidate will be responsible for the day-to-day operation of the computer systems used in the Department.

UNIVERSITY OF SINGAPORE HISTORY Lectureship Applications are invited for appointment to a Lectureship in the Department of History. The successful candidate will be responsible for the day-to-day operation of the computer systems used in the Department.

field of interest. It is expected that this appointment will stimulate interest in and research in the field of landscape design in particular, but previous work in the field is not a prerequisite for the appointment. The major emphasis is on an analytical approach to the study of landscape and the integration of such studies into the more general field of landscape design. The Department of Planning and Architecture has a considerable interest in the study of the arts and other expressive activities and it is hoped that the Professor of Urban Design will contribute to this endeavour. 1 November 1977.

LECTURER/FELLOW/TUTOR IN POLITICAL SCIENCE It is hoped that two appointments will be made in the Department of Political Science (Head: Professor J. J. Richardson) over the next few years. The successful candidates will be required to take a dual role in the Department of Political Science and in the Department of Social Sciences. The successful candidates will be required to take a dual role in the Department of Political Science and in the Department of Social Sciences.

LECTURER IN BEHAVIOURAL SCIENCES (PSYCHOLOGY) Applicants should have completed a doctoral degree in Psychology, and have experience in the application and teaching of a wide spectrum of inorganic courses. Candidates should have a B.Sc. or equivalent with a major in inorganic chemistry and a minimum of 12 months' postgraduate research in inorganic chemistry.

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UNIVERSITY OF ZAMBIA Applications are invited for the following posts in the Centre for Continuing Education: (i) DEPARTMENT OF ADULT EDUCATION AND IN-SERVICE TRAINING SENIOR LECTURER/LECTURER IN: (a) Teacher Education, Education Sociology and Development Education, (b) Teacher Education and Mathematics Education, (c) Teacher Education and Physical Education, (d) Teacher Education and Education Psychology, (e) Teacher Education and English Language Education, (f) Adult Education, Curriculum and Media Education, (g) Adult Education and Welfare Education. Applicants for (a)-(f) must be qualified teachers with a first degree or advanced diploma and a higher diploma in Education. Applicants for (g) and (h) must be experienced Adult Educators with a first degree or an advanced diploma and a higher diploma in Adult Education. Experience in an African country desirable.

DEPARTMENT OF CORRESPONDENCE STUDIES SENIOR LECTURER/LECTURER FOR CORRESPONDENCE COURSE ADVISER Applicants should have a first degree and a higher degree in one or more of the usual academic disciplines. A first degree in Education, Experience in preparation of correspondence education materials, desirable, and evidence of editing academic material would be an asset.

DEPARTMENT OF MASS COMMUNICATION (a) RADIO AND TELEVISION TECHNICIAN (b) PROGRAMME PRODUCER Applicants for post (a) must have either a Degree or Diploma in Radio and Television Engineering/Electronics from a recognized institution with five years' experience in studio work. The applicant must be able to install and maintain a modern Radio and Television receiving sets. Candidates for post (b) must have a Degree in Mass Communication, Speech Communication, Drama, Speech and Theatre, Broadcast Journalism, Radio/Television, Linguistics and Broadcasting. Previous Broadcasting experience of about three to five years is essential. Applicants will be expected to effectively handle advertising, programme production, presentation and editing.

DEPARTMENT OF EXTENSION SERVICES SENIOR LECTURER/LECTURER (3 posts) The applicants will act as Resident Tutors in the Extension Department in any discipline and an advanced diploma in Adult Education, or a first degree in any discipline, in the field of Adult Education, Experience in an African country desirable.

UNIVERSITY OF EDINBURGH DEPARTMENT OF COMMUNITY MEDICINE SENIOR LECTURER Health Service Planning Applicants are invited for the above post. Experience in or a knowledge of most of the following subjects would be of interest: health care, planning theory and methodology, policy analysis, health economics, operational research and systems analysis. A medical qualification is not essential. Preference will be given to someone interested in the development of health planning not only in theoretical terms but also through research and in practical health service delivery. There will be every encouragement to foster close links with the health service. The successful applicant will be invited to give a presentation to the Health Service Planning Committee. Salary: £16,500-17,500 p.a. (plus 12% superannuation). Closing date: 31 August 1977.

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UNIVERSITY OF THE WEST INDIES JAMAICA Applications are invited for the post of LECTURER/ASSISTANT LECTURER IN THE DEPARTMENT OF LINGUISTICS AND USE OF ENGLISH Applicants for the post should have a good command of English and/or French and undertake teaching in one of the following areas: (a) English and French, (b) English and Spanish, (c) English and Portuguese, (d) English and Italian, (e) English and German, (f) English and Latin, (g) English and Arabic, (h) English and Chinese, (i) English and Japanese, (j) English and Russian, (k) English and Hindi, (l) English and Urdu, (m) English and Bengali, (n) English and Malay, (o) English and Sinhalese, (p) English and Tamil, (q) English and Telugu, (r) English and Kannada, (s) English and Malayalam, (t) English and Marathi, (u) English and Gujarati, (v) English and Punjabi, (w) English and Nepali, (x) English and Urdu, (y) English and Hindi, (z) English and Bengali, (aa) English and Malay, (ab) English and Sinhalese, (ac) English and Tamil, (ad) English and Telugu, (ae) English and Kannada, (af) English and Malayalam, (ag) English and Marathi, (ah) English and Gujarati, (ai) English and Punjabi, (aj) English and Nepali, (ak) English and Urdu, (al) English and Hindi, (am) English and Bengali, (an) English and Malay, (ao) English and Sinhalese, (ap) English and Tamil, (aq) English and Telugu, (ar) English and Kannada, (as) English and Malayalam, (at) English and Marathi, (au) English and Gujarati, (av) English and Punjabi, (aw) English and Nepali, (ax) English and Urdu, (ay) English and Hindi, (az) English and Bengali, (ba) English and Malay, (bb) English and Sinhalese, (bc) English and Tamil, (bd) English and Telugu, (be) English and Kannada, (bf) English and Malayalam, (bg) English and Marathi, (bh) English and Gujarati, (bi) English and Punjabi, (bj) English and Nepali, (bk) English and Urdu, (bl) English and Hindi, (bm) English and Bengali, (bn) English and Malay, (bo) English and Sinhalese, (bp) English and Tamil, (bq) English and Telugu, (br) English and Kannada, (bs) English and Malayalam, (bt) English and Marathi, (bu) English and Gujarati, (bv) English and Punjabi, (bv) English and Punjabi, (bw) English and Nepali, (bx) English and Urdu, (by) English and Hindi, (bz) English and Bengali, (ca) English and Malay, (cb) English and Sinhalese, (cc) English and Tamil, (cd) English and Telugu, (ce) English and Kannada, (cf) English and Malayalam, (cg) English and Marathi, (ch) English and Gujarati, (ci) English and Punjabi, (cj) English and Nepali, (ck) English and Urdu, (cl) English and Hindi, (cm) English and Bengali, (cn) English and Malay, (co) English and Sinhalese, (cp) English and Tamil, (cq) English and Telugu, (cr) English and Kannada, (cs) English and Malayalam, (ct) English and Marathi, (cu) English and Gujarati, (cv) English and Punjabi, (cv) English and Punjabi, (cw) English and Nepali, (cx) English and Urdu, (cy) English and Hindi, (cz) English and Bengali, (da) English and Malay, (db) English and Sinhalese, (dc) English and Tamil, (dd) English and Telugu, (de) English and Kannada, (df) English and Malayalam, (dg) English and Marathi, (dh) English and Gujarati, (di) English and Punjabi, (dj) English and Nepali, (dk) English and Urdu, (dl) English and Hindi, (dm) English and Bengali, (dn) English and Malay, (do) English and Sinhalese, (dp) English and Tamil, (dq) English and Telugu, (dr) English and Kannada, (ds) English and Malayalam, (dt) English and Marathi, (du) English and Gujarati, (dv) English and Punjabi, (dv) English and Punjabi, (dw) English and Nepali, (dx) English and Urdu, (dy) English and Hindi, (dz) English and Bengali, (ea) English and Malay, (eb) English and Sinhalese, (ec) English and Tamil, (ed) English and Telugu, (ee) English and Kannada, (ef) English and Malayalam, (eg) English and Marathi, (eh) English and Gujarati, (ei) English and Punjabi, (ej) English and Nepali, (ek) English and Urdu, (el) English and Hindi, (em) English and Bengali, (en) English and Malay, (eo) English and Sinhalese, (ep) English and Tamil, (eq) English and Telugu, (er) English and Kannada, (es) English and Malayalam, (et) English and Marathi, (eu) English and Gujarati, (ev) English and Punjabi, (ev) English and Punjabi, (ew) English and Nepali, (ex) English and Urdu, (ey) English and Hindi, (ez) English and Bengali, (fa) English and Malay, (fb) English and Sinhalese, (fc) English and Tamil, (fd) English and Telugu, (fe) English and Kannada, (ff) English and Malayalam, (fg) English and Marathi, (fh) English and Gujarati, (fi) English and Punjabi, (fj) English and Nepali, (fk) English and Urdu, (fl) English and Hindi, (fm) English and Bengali, (fn) English and Malay, (fo) English and Sinhalese, (fp) English and Tamil, (fq) English and Telugu, (fr) English and Kannada, (fs) English and Malayalam, (ft) English and Marathi, (fu) English and Gujarati, (fv) English and Punjabi, (fv) English and Punjabi, (fw) English and Nepali, (fx) English and Urdu, (fy) English and Hindi, (fz) English and Bengali, (ga) English and Malay, (gb) English and Sinhalese, (gc) English and Tamil, (gd) English and Telugu, (ge) English and Kannada, (gf) English and Malayalam, (gg) English and Marathi, (gh) English and Gujarati, (gi) English and Punjabi, (gj) English and Nepali, (gk) English and Urdu, (gl) English and Hindi, (gm) English and Bengali, (gn) English and Malay, (go) English and Sinhalese, (gp) English and Tamil, (gq) English and Telugu, (gr) English and Kannada, (gs) English and Malayalam, (gt) English and Marathi, (gu) English and Gujarati, (gv) English and Punjabi, (gv) English and Punjabi, (gw) English and Nepali, (gx) English and Urdu, (gy) English and Hindi, (gz) English and Bengali, (ha) English and Malay, (hb) English and Sinhalese, (hc) English and Tamil, (hd) English and Telugu, (he) English and Kannada, (hf) English and Malayalam, (hg) English and Marathi, (hh) English and Gujarati, (hi) English and Punjabi, (hj) English and 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Tamil, (pq) English and Telugu, (pr) English and Kannada, (ps) English and Malayalam, (pt) English and Marathi, (pu) English and Gujarati, (pv) English and Punjabi, (pv) English and Punjabi, (pw) English and Nepali, (px) English and Urdu, (py) English and Hindi, (pz) English and Bengali, (qa) English and Malay, (qb) English and Sinhalese, (qc) English and Tamil, (qd) English and Telugu, (qe) English and Kannada, (qf) English and Malayalam, (qg) English and Marathi, (qh) English and Gujarati, (qi) English and Punjabi, (qj) English and Nepali, (qk) English and Urdu, (ql) English and Hindi, (qm) English and Bengali, (qn) English and Malay, (qo) English and Sinhalese, (qp) English and Tamil, (qq) English and Telugu, (qr) English and Kannada, (qs) English and Malayalam, (qt) English and Marathi, (qu) English and Gujarati, (rv) English and Punjabi, (rv) English and Punjabi, (rw) English and Nepali, (rx) English and Urdu, (ry) English and Hindi, (rz) English and Bengali, (ra) English and 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Bengali, (tn) English and Malay, (to) English and Sinhalese, (tp) English and Tamil, (tq) English and Telugu, (tr) English and Kannada, (ts) English and Malayalam, (tt) English and Marathi, (tu) English and Gujarati, (tv) English and Punjabi, (tv) English and Punjabi, (tw) English and Nepali, (tx) English and Urdu, (ty) English and Hindi, (tz) English and Bengali, (ua) English and Malay, (ub) English and Sinhalese, (uc) English and Tamil, (ud) English and Telugu, (ue) English and Kannada, (uf) English and Malayalam, (ug) English and Marathi, (uh) English and Gujarati, (ui) English and Punjabi, (uj) English and Nepali, (uk) English and Urdu, (ul) English and Hindi, (um) English and Bengali, (un) English and Malay, (uo) English and Sinhalese, (up) English and Tamil, (uq) English and Telugu, (ur) English and Kannada, (us) English and Malayalam, (ut) English and Marathi, (uu) English and Gujarati, (uv) English and Punjabi, (uv) English and Punjabi, (uw) English and Nepali, (ux) English and Urdu, (uy) English and Hindi, (uz) English and Bengali, (va) English and Malay, (vb) English and Sinhalese, (vc) English and Tamil, (vd) English and Telugu, (ve) English and Kannada, (vf) English and Malayalam, (vg) English and Marathi, (vh) English and Gujarati, (vi) English and Punjabi, (vj) English and Nepali, (vk) English and Urdu, (vl) English and Hindi, (vm) English and Bengali, (vn) English and Malay, (vo) English and Sinhalese, (vp) English and Tamil, (vq) English and Telugu, (vr) English and Kannada, (vs) English and Malayalam, (vt) English and Marathi, (vu) English and Gujarati, (vv) English and Punjabi, (vv) English and Punjabi, (vw) English and Nepali, (vx) English and Urdu, (vy) English and Hindi, (vz) English and Bengali, (wa) English and Malay, (wb) English and Sinhalese, (wc) English and Tamil, (wd) English and Telugu, (we) English and Kannada, (wf) English and Malayalam, (wg) English and Marathi, (wh) English and Gujarati, (wi) English and Punjabi, (wj) English and 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Administration

CARDIFF UNIVERSITY COLLEGE Applications are invited for the post of ADMINISTRATIVE ASSISTANT in the committee section of the Higher Education Commission...

MIDDLESEX THE POLYTECHNIC

ADMINISTRATIVE ASSISTANT £5,000 to £5,175 per annum A new post within our Education and Performing Arts Resource Centre...

Research

LONDON THE UNIVERSITY

GRANTS FOR RESEARCH Applications are invited from members of the University and members of Schools of the University...

NEWCASTLE UPON TYNE THE UNIVERSITY

RESEARCH ASSOCIATE: COMPTON RESEARCH ASSOCIATE: GEOGRAPHY/PLANNING Applications are invited for the above posts...

Colleges and Institutes of Higher Education

ATHROFA GOLEDD-DU CYMRU

THE NORTH WALES HIGHER EDUCATION ADMINISTRATION COLLEGE Applications are invited for the post of ADMINISTRATIVE ASSISTANT...

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Colleges of Further Education

LONDON INDEPENDENT LONDON EDUCATION AUTHORITY LONDON COLLEGE OF DESIGN Applications are invited from individuals committed to creative design...

Colleges of Further Education

LONDON DEPARTMENT OF PHOTOGRAPHY, FILM AND TELEVISION Applications are invited from individuals committed to creative design...

Colleges of Further Education

LONDON THE UNIVERSITY Applications are invited from individuals committed to creative design...

Colleges of Further Education

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LONDON THE UNIVERSITY Applications are invited from individuals committed to creative design...

General Vacancies

N. M. Rothschild & Sons Limited Archivist

N. M. Rothschild & Sons Limited propose to appoint an Archivist to take charge of their muniments at New Court, St. Swithin's Lane, London. Applicants must be graduates with a Diploma in Archival Administration...

Salary will be in the range £5,400-£8,000 according to age and experience; non-contributory pension scheme; 4 weeks' annual leave plus public holidays. Applicants should apply in writing, giving the names of two referees, before 31st August, 1977, to: P. F. G. Fane, Staff Director, N. M. Rothschild & Sons Limited, New Court, St. Swithin's Lane, London EC4P 4DU.



SOCIAL SCIENCE RESEARCH COUNCIL

The SSRC is a Government funded organisation operating under Royal Charter. It promotes, supports and carries out research in the Social Sciences. The Council, whose headquarters staff of 162 are all engaged in administration, has two vacancies:

- 1. Assistant to the Secretary of the Research Grants Board which is responsible for the operation of the SSRC Research Grants Scheme. The successful candidate will be at least 27 years and have a good honours degree in one of the Social Sciences. 2. Clerk to the Council/Assistant to the Chairman and Secretary. The successful candidate will have considerable experience of research administration and the ability to work under pressure. Qualifications at degree level and an interest in the Social Sciences would be an advantage.

Both posts will have the responsibility for organising the factual material, and providing administrative support at senior level. The salary scales for both posts are within £4,365-£6,243 (including London Weighting) plus £522 per annum Pay Supplement. Starting salary may be above the minimum depending on experience and qualifications. The hours of duty are 36 per week excluding lunch hours and the annual leave entitlement is 22 days holiday plus 94 days public and privilege holiday. The Council has its own non-contributory pension scheme. Please write for application form and job descriptions to Mrs. Vred Dighton (Ref. CTC/RGD/THBS), SSRC, 1 Temple Avenue, London EC4Y 0BD. Closing dates: for post 1 - 22 August 1977 for post 2 - 29 August 1977

ASSISTANT ECONOMIST (Statistician) £2,395-£3,900 (plus supplements)

Applications are invited from both men and women for a permanent appointment in the Department of Economic Services. The duties will involve helping to develop the Department's Labour Market Statistics, interpreting and producing reports on survey results, and giving statistical advice on survey design to non-statisticians. A good Honours Degree (or equivalent qualification) in an appropriate subject and at least one year's relevant experience. Preference may be given to candidates with computing experience. In addition to salary scale quoted pay supplements of between £310.50 and £522 per annum will be payable. Starting salary will be related to qualifications and experience. Please write or telephone for an application form quoting reference EG 207/77/THBS to Civil Service Commission, Rosepark House, Upper Newlands Road, Belfast BT4 3NR (telephone Dundonald 4085 ext. 257). Completed forms must be returned to arrive not later than 30th August, 1977.

NORTHERN IRELAND CIVIL SERVICE

WORKERS' EDUCATIONAL ASSOCIATION SOUTH EASTERN DISTRICT Tutor-Organiser

Applications are invited for the post of Tutor-Organiser in the Brighton area of East Sussex. Candidates should have a University degree of similar qualification in history, economics, politics or related subjects and should have previous adult teaching and/or organisational experience. Salary scale is £2,122 to £3,122 (normal maximum) plus £231 (1) to £270 (2) after three years on the normal maximum. Commencing salary according to age, qualification and experience of person appointed. Further details and application forms from The District Secretary, W.E.A. South Eastern District, 4 Castle Hill, Rochester, Kent ME1 1GG. Closing date 31st August, 1977.

HEAD of RESEARCH and DEVELOPMENT UNIT

to be based in London or Brighton. Recognised English Language School Inviting applications from candidates with the following qualifications: relevant postgraduate degree(s)/diploma(s); min. 5 years' EFL experience, preferably including teacher-training and production of ESP materials. Please write enclosing c.v. to: Richard Burgess, Repent School, 748, High Street, Brighton, BN1 2JG. (Details of appointment will be sent to suitable applicants by return of post.)

WORKERS' EDUCATIONAL ASSOCIATION SOUTH EASTERN DISTRICT Tutor-Organiser

Applications are invited for the post of Tutor-Organiser in the Medway area of Kent. Candidates should have a University degree of similar qualification in history, economics, politics or related subjects and should have previous adult teaching and/or organisational experience. Salary scale is £2,122 to £3,122 (normal maximum) plus £231 (1) to £270 (2) after three years on the normal maximum. Commencing salary according to age, qualification and experience of person appointed. Further details and application forms from The District Secretary, W.E.A. South Eastern District, 4 Castle Hill, Rochester, Kent ME1 1GG. Closing date 31st August, 1977.

EFL TEACHERS

Applications are invited from qualified and experienced teachers of English as a Foreign Language for full-time posts from September and October onwards. Experience in ESP or Cambridge Examination work would be an advantage. Apply in writing with full curriculum vitae to The Principal, St. Giles School of English, 18 Cromwell Road, Hove, Sussex BN3 3EN.

Overseas

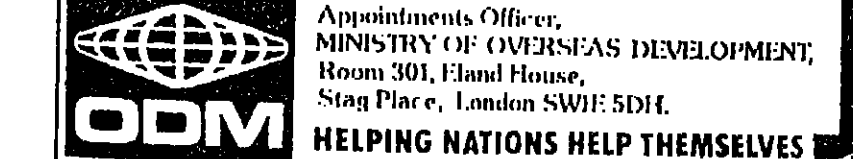
OVERSEAS DEVELOPMENT KNOW-HOW vital to developing countries

Asian Institute of Technology, Bangkok Thailand

- 1. Expert in Industrial Economics 2. Expert in Rural Development and Planning

(1) To teach courses in areas of industrial and general economics such as industrial development, international economics, microeconomics and macroeconomics. Applicants should have doctorate in industrial economics or equivalent, with preferably Bachelor's or Master's degree in Engineering, some teaching and/or research and/or consulting experience. (2) To teach and develop curriculum in role of agriculture and small-scale industries in rural development, rural-urban integration, rural development policies, planning and implementation. Applicants should have degree in appropriate discipline preferably Agricultural Economics, Rural Sociology, Rural Community Development combined with post-graduate studies in Rural Development and Planning and significant research experience involving problems of developing nations. Both appointments 2 years.

Salaries in accordance with qualifications and experience plus variable tax free overseas allowance in range £1,570-£3,700 p.a. Superannuation rights may be catered for. The posts are wholly financed by the British Government under Britain's programme of aid to the developing countries. In addition to basic salary and overseas allowances other benefits normally include paid leave, free family passages, children's education allowances and medical aid. Applicants should be citizens of the United Kingdom. For full details and application form please apply quoting ref. 317 stating post concerned, and giving details of age, qualifications and experience to: Appointments Officer, MINISTRY OF OVERSEAS DEVELOPMENT, Room 301, Eland House, Stag Place, London SW1E 5DH.



General Vacancies

LECTURERS for Degree and post-graduate courses in Engineering Design Weapon Systems

The Royal Military College of Science at Shrivenham, Oxfordshire, provides a wide range of university-level courses for civilian and military personnel. It has a long history of expertise in Weapon Systems, and the Department of Mechanical Engineering is now introducing a one-year post-graduate course in Gun Systems Design. This course is a joint venture with the Royal Ordnance Factories. Candidates must have a 1st or 2nd class Honours degree, or an equivalent qualification, in engineering or science and experience in engineering design. Relevant experience in the design aspects of weapon technology is desirable. Starting salaries will range between £4,700 to £6,300 for Senior Lecturer, and £6,000 to £7,725 for Principal Lecturer, according to qualifications and experience. Non-contributory pension scheme. For further details and an application form (to be returned by 30th August, 1977) write to Civil Service Commission, Alencon Link, Basingstoke, Hants RG21 1JB, or telephone Basingstoke (0256) 68551 (answering service operates outside office hours). Please quote Ref: S/956/2.

LETTERS TO THE EDITOR TEC credit exemption problems

Sir—The National Association of Teachers in Further and Higher Education is concerned about administration allowances for Technicians' Council programmes and about the educational desirability of such programmes. Others have expressed concern about the educational standards of these programmes. I have not yet seen any complaints about a more immediate problem arising from the TEC proposals: that of timetabling the programmes. We are being asked to fit the flexibility of a unit credit system into the rigid framework of part-time day release. A college on exchange from an American community college with years of experience of the unit system concludes that we are crazy to even attempt the task.

In preparation for starting TEC programmes in 1978, I have been investigating the problems created by the credit exemption system. A survey of 250 engineering technology students provided the data for deriving a sample population of a first year intake. In the certificate programme for mechanical and production engineering technicians it is possible to gain exemption from all five student timetables to accommodate all combinations of credits. There is only one timetabling arrangement which will accommodate all students and that is to timetable each unit concurrently with its pre-requisite. This solution is likely to place an intolerable constraint upon the timetables of service departments, and hence may prove to be unacceptable. Many of the remaining 119 permutations of a level I and level II timetable are unacceptable. The remainder will be far too small and the latter condition cannot be improved without worsening the former. In short, while we at present timetable by groups we will in future have to timetable each individual timetable. Are a common feature of many courses in further and higher education but not within the centres of part-time day release. At present the range of 16 to 20 students. It would appear that the best one is likely to achieve for TEC programmes is a range of eight to 20. I understand that the DES has said it will be concerned if TEC programmes prove to be more expensive than present technician courses. This seems to me to be a foregone conclusion certainly in terms of hidden costs. It would be interesting to know how colleges currently running TEC programmes have solved the timetabling problem. Rumour has it that some have simplified it by rejecting the unit credit system in favour of the exemption system used for integrated courses. It would also be interesting to know if the TEC gave any consideration at all to these effects of their proposals. Yours faithfully, ROBERT HEDLEY, Head of department of mechanical and production engineering, Medway and Maidstone College of Technology, Studies, Polytechnic of Central London.

Audio-visual contributions to learning

Sir—My friend, Dr Jon Baggaley, writes (THES July 22) about evidence that live lectures have produced significantly higher levels of achievement than videotape recordings of lectures, which in turn have produced a significantly higher level than "studio-produced videotapes". With respect, such evidence cannot logically be generalizable. I previously study in Newfoundland (from where the evidence emanates) are recordings still being made of academics lecturing; student resistance to such exercises was widely documented a decade ago.

It is the case that at Memorial University studio-produced videotapes have been produced even less valuable they must indeed be poor stuff. Such comparative studies were being likened as long ago as 1963 to the struggles of the medieval physician to determine which of two herbs had greater curative value, when he had no knowledge of the chemistry, physiology or pharmacology involved. The most valuable research into the cost-effectiveness of audio-visual contributions to learning examines ways of best utilizing existing facilities for academic purposes in specific contexts. That is the kind of investigation Jon Baggaley has himself suggested in his past—"Developing an Effective Educational Medium", Programmed Learning, May, 1973. Yours faithfully, I. R. MOSS, Director, Leeds University Audio-Visual Service.

General Vacancies

OXFORD OXFORD OXFORD MANAGEMENT STUDIES Applications are invited for the post of Lecturer in Industrial Management. The appointments will be for 1978-79 and 1979-80. Salary scale £5,315 to £9,225. Candidates should have a relevant degree and, preferably, industrial experience in the industrial relations field. The two year project will examine industrial training for managers and it will be undertaken by Lord McCraw and R. Dwyer. Applications should be sent to: 222, Oxford Centre for Management Studies, Mansfield Road, Oxford, OX1 2TA.

LONDON COLLEGIUM COLLEGIUM SOCIOLOGY DEPARTMENT

Experienced SECRETARY to the Department of Sociology. The successful candidate will be responsible for the administrative and clerical work of the department. The post is full-time and involves a high level of responsibility. The successful candidate will be expected to have a minimum of five years' experience in a similar post. The salary scale is £5,315 to £9,225. Applications should be sent to: The Director, Collegium College, 10, Bedford Way, Cambridge, CB2 3RQ.

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